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McNamara Papers

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February 2[illegible], 1[illegible]

Itinerary for Visit to Congo, CAR, Niger, Upper Volta, and Mali, March 1-10, 1972

DATE	TIME	GMT		REMARKS
Feb. 29	1830	2330	Depart Washington--National	A116
Tues.	1932	0032	Arrive New York	River Club
Mar. 1	0930	1430	Depart New York--JFK	AF010 (B707)
Wed.	2240	2140	Arrive Paris	Bristol
Mar. 2	0845		Mr. Chaufournier	
Thurs.	0930		Mr. Giscard d'Estaing	
	1100	1000	Depart Paris--Le Bourget UT767 (DC8)	Marseille, Douala, Libreville
				GMT 1115-1205 1735-1835 1925-2010
	2230	2130	Arrive Brazzaville (Congo)	Govt. Guesthouse
Mar. 3	0900		Meeting with President Ngouabi	
Fri.	1000		Discussions with Government (until 1215)	
	1230		Meeting with UN ResRep Pennacchio, Italian	
	1300		Lunch free	
	1430		Meeting with heads of Agence Transequatorial de Communications (ATC) and visit to port of Brazzaville (till 1630)	
	1700		Visit Brazzaville and discuss urban problems (till 1800)	
	1900		Dinner hosted by President	
Mar. 4	0815	0715	Leave Brazzaville	UT722 (DC8)
Sat.	0950	0850	Arrive Bangui (CAR)	Safari Hotel
	1130		Meeting with President Bokassa	
	1215		Meeting with UN ResRep Balima, Upper Voltan	
	1300		Lunch free	
	1430		Discussions with Government (till 1600)	
	1630		Visit to road and rural development (till 1800)	
	1900		Dinner hosted by President (folk performance)	
Mar. 5	0730	0630	Depart Bangui	President's Caravelle
Sun.	1030	0930	Arrive Niamey (Niger)	Villas de l'Entente
	1230		Meeting with President Diori	
	1300		Lunch with the President (till 1430)	
	1530		Visit Saga rice project	
	1700		Visit livestock station Kirkissoye (till 1800)	
	1830		Meeting with UN ResRep Grondin, Canadian (till 1900)	
	2000		Dinner hosted by President (folk performance)	
Mar. 6	0800		Meeting with Mr. Kasse, Representative of ECA in West Africa	
Mon.	0830		Discussions with Government (till 1115)	
	1145		Meeting with President (till 1215)	
	1230	1130	Depart Niamey	President's DC6
	1245	1245	Arrive Ouagadougou (Upper Volta)	President's Palace
	1300		Lunch free	
	1500		Meeting with President Lamizana	
	1545		Meeting with UN ResRep Dorsainville, Haitian	
	1615		Meeting with Prime Minister Ouedraogo	
	1630		Discussions with Government (till 1800)	
	[illegible]		[illegible]	
	1930		Dinner hosted by President	

Mar. 7 Tues.	~~0800~~ 0830	0800	Depart Ouagadougou (Govt. plane DC4)	
	~~0915~~ 0945	0915	Arrive Bobo Dioulasso (refreshments)	
	~~1000~~ 1015		Visit Cotton Project and Rural Development Fund	
	~~1130~~ 1115		Visit Kou Valley (River Blindness area)	
	~~1300~~ 1315		Lunch at Prefect Residence	
	~~1430~~ 1515		Visit Rural Center on River Blindness (till 1630)	
	~~1700~~ 1630	1700	Leave Bobo Dioulasso	Government DC4
	1815	1815	Arrive Mopti	Guesthouse
	1900		Dinner free	
Mar. 8 Wed.	0830		Visit Mopti rice area	
	1230	1230	Leave Mopti	Government plane
			Snack on the plane	
	1330	1330	Arrive Segou	
	1400		Visit "Office du Niger" agricultural project	
	1630	1630	Leave Segou	Government plane
	1700	1700	Arrive Bamako	Govt. Guesthouse
	1845		Meeting with President Traore	
	~~1915~~ 1930		Dinner hosted by President (folk performance)	
Mar. 9 Thurs.	0830		Discussions with Government (till 1100)	
	1200		Visit Haute Vallee rural projects (lunch on the road) (till 1600)	by car
	1815	1815	Depart Bamako	RK503 (Caravelle)
	2000	2000	Arrive Dakar	
	2030		Dinner hosted by President Senghor	
	2300		Leave Presidency	
	0000	0000	Depart Dakar	PA185 (B707)
Mar. 10 Fri.	0335	0835	Arrive New York--JFK	transfer to Newark
	0610	1110	Depart Newark	DL307 (DC9)
	0700	1200	Arrive Washington--National	

UPPER VOLTA

Visit of Mr. Robert S. McNamara

President of the World Bank Group

1. Itinerary and Daily Schedule of Activities

2. Prepared Statement by President

3. Maps

4. Basic Data
   - A. Country Data
   - B. Social Indicators

5. Political and Economic Situation
   - A. The Country and the People (including Notes on life on the Mossi Plateaux and Annex extracted from a book by Elisa DAGGS)
   - B. Political Situation
   - C. Economy (General) (Basic problems and current situation)
   - D. Population
   - E. Sector Analyses
     1. Agriculture (including Note on nutrition with annexes)
     2. Livestock
     3. Education
     4. Transportation

6. Foreign Aid

7. Past Bank Operations

8. Future Bank Operations
   - A. Agriculture (Rural Development Fund; Anti-Onchocerciasis campaign and related development projects)
   - B. Livestock
   - C. Education
   - D. Transportation
   - E. Mineral Resources (Tambao project)
   - F. Other Sectors

9. Subjects likely to be discussed (RDF project manager, Tambao, etc.)
   - A. Subjects you may wish to bring up
   - B. Subjects which the Government is likely to bring up

10. Biographies (in alphabetical order)

11. Background Documents

NATIONAL
15-080

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OFFICIAL VISIT OF Mr. ROBERT S. MCNAMARA

PRESIDENT OF THE WORLD BANK GROUP

TO

UPPER VOLTA

Monday, March 6 - Tuesday, March 7

Monday, March 6

12:45 (local time - one hour less)	Arrive Ouagadougou - Reception at the airport by Government Delegation and UN Resident Representative (Mr. Dorsinville - Haïtian)
13:00	LUNCH FREE
15:00	Brief courtesy visit to the President of the Republic, H.E. General Sangoulé LAMIZANA
15:45	Meeting with the UN Resident Representative
16:15	Courtesy visit to the Prime Minister, H.E. Gérard Kango OUEDRAOGO
16:30 - 18:00	Discussions with Government under the chairmanship of the Prime Minister
~~18:10~~	~~H.E. Cardinal ZOUNGRANA (exchange of views on demography and family planning)~~
19:30	Dinner offered by the President of the Republic (folk performance)

Tuesday, March 7

08:00	Leave Ouagadougou to Bobo Dioulasso (Upper Volta)
09:15	Arrive Bobo Dioulasso - quick drink at the President's home
10:00 - 11:30	Visits of Cotton project and Rural Development Fund
11:30 - 12:30	Visit of Kou valley (River Blindness area)
13:00	Lunch at the Prefect residence
14:30 - 16:30	River Blindness Regional Center (Bobo Dioulasso)
17:00	Leave Bobo Dioulasso on board government plane (VIP C-47 = DC4) to Mopti (Mali)

Remarks at Airport upon Arrival in

UPPER VOLTA

My visit to Upper Volta marks the fulfillment of an old desire, and I am particularly happy that it gives me the opportunity to meet its leader, President Lamizana. In recent years, I am happy to say that the relationship between your country and the World Bank Group has become much stronger. I am confident that the cordiality of the relationship will enable us together to find newer and better ways of moving towards our common goal -- raising the living standards of the people of this country.

The World Bank Group has greatly expanded its activities round the globe. In doing so, we have been particularly anxious to increase the flow of assistance to countries which, for a variety of reasons, have been severely handicapped in their efforts to move up the development ladder. Upper Volta is one such country. The total of our commitments here since lending began in 1969 now stands at $7 million. Part of the assistance has been provided for a project to strengthen telecommunications links both within your borders and with the outside world. But by far the larger proportion is for an agricultural project that will help 46,000 farmers and their families in the western region to increase cotton production and live a better life.

We are aware of the crucial importance of agriculture to your economy and of the serious difficulties which your rural population is encountering in its efforts to raise its standard of living. That is why we are now closely studying the evolution of a new type of rural development project which, by catering to the small farmer's most immediate needs, could be of great significance not only for Upper Volta, but for other countries as well.

Endemic diseases are another serious problem in Upper Volta. We are therefore following closely the efforts made by the World Health Organization with the cooperation of other agencies, to develop a program for the control of riverblindness. Projects are being prepared to assist the population in the resettlement of some valleys in the project area. This should, at the same time, improve the standard of living of the settlers and relieve population pressures in the adjacent areas.

I believe that the spirit of creative innovation which features our partnership, together with the wise and strong economic policy of your Government, will, in the years ahead, open new opportunities for constructive endeavor in the interests of all your people.

IBRD 2373R1

NOVEMBER 1971

MAP 1

ECONOMIC RESOURCES AND RAINFALL

REPUBLIC OF UPPER VOLTA

Inter-state roads
Railway
Average annual rainfall in millimeters

KILOMETERS 0 50 100 150

GHANA
TOGO
DAHOMEY
IVORY COAST
ABIDJAN
NIGER
NIAMEY
NIGER RIVER
AFRICA
REPUBLIC OF UPPER VOLTA

GROUNDNUTS
CORN
RICE
COTTON
SORGHUM
CATTLE
SHEEP

Gaoua
Bonfora
Orodara
Diebougou
Léo
Pô
Banfora
Houndé
Bobo-Dioulasso
Dédougou
Tansila
Nouna
Toma
Tougan
Dissassa
Djibo
Arbinda
Kongoussi
Kaya
Ouagadougou
Koudougou
Dioyr
Sabi
Tyaramoko
Bagassi
Boromo
Ouarkoye
Sarfane
Solenzo
Kounadougou

Fada Ngourma
Tombao (Mongoneese)

RED VOLTA
WHITE VOLTA
BLACK VOLTA

1400
1300
1200
1100
1000
900
800
700
600
500

TIFFEN® Color Control Patches
Blue Cyan Green Yellow Red Magenta White 3/Color Black
© The Tiffen Company, 2007
Inches Centimetres

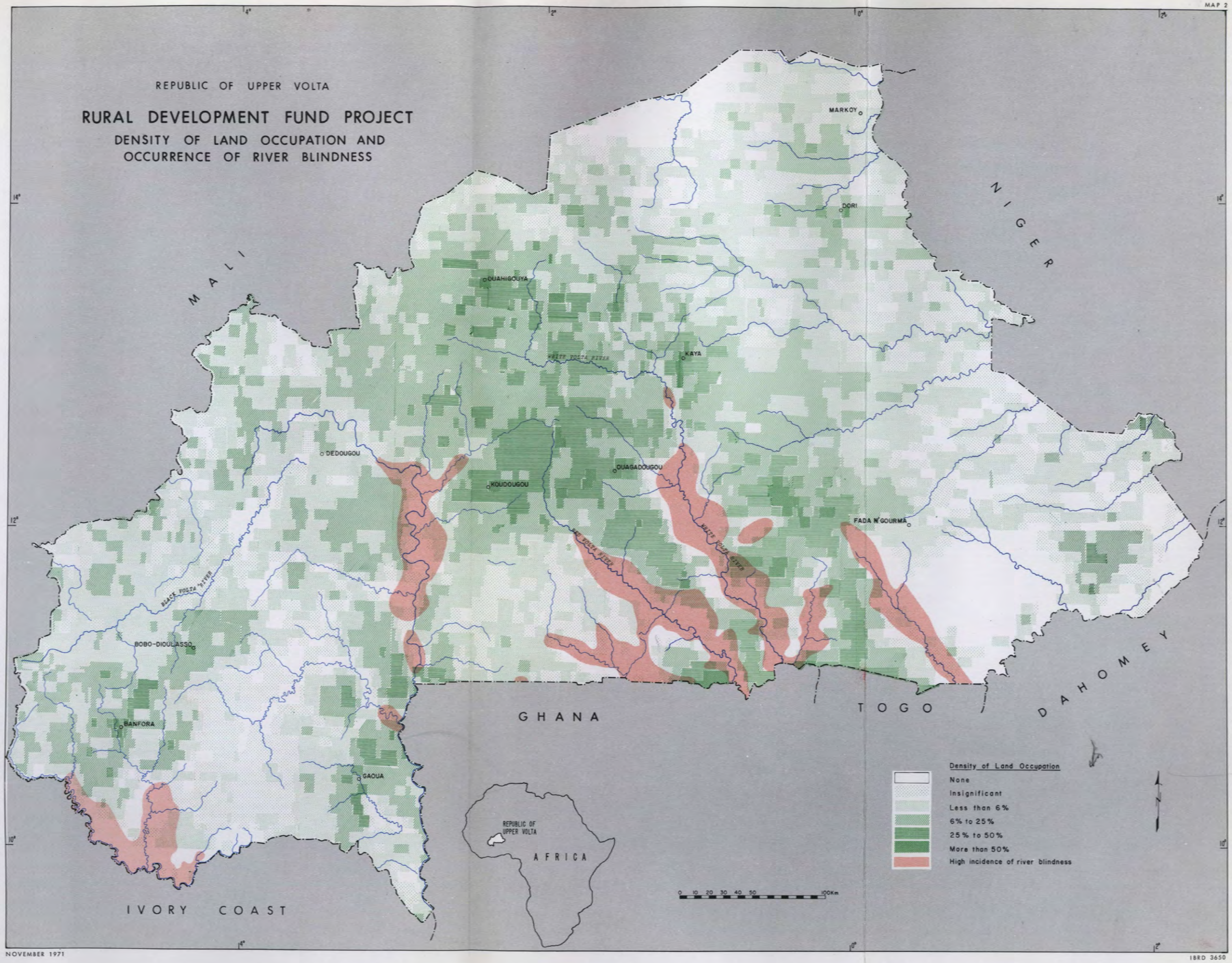
Centimetres Inches
TIFFEN Color Control Patches
Blue Cyan Green Yellow Red Magenta White 3/Color Black
© The Tiffen Company, 2007

MAP 2

REPUBLIC OF UPPER VOLTA

RURAL DEVELOPMENT FUND PROJECT

DENSITY OF LAND OCCUPATION AND OCCURRENCE OF RIVER BLINDNESS



NOVEMBER 1971

IBRD 3650

8.01

Population: 5.3m
GDP per capita: U.S.$50 (1966)

Attachment 1

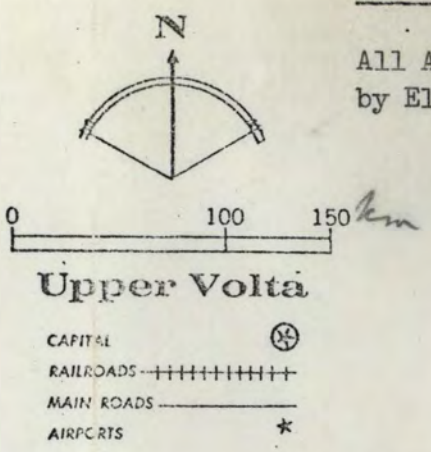
UPPER VOLTA - IDA/IBRD LENDING PROGRAM
($ millions)

		1969	1970	1971	1972	1973	1974	1975	1976	1977	Total 1969-1973	Total 1973-1977
Black Volta Cotton	IDA			6.2								
Cotton II	IDA						3.0					
Cotton III	IDA									4.0		
Rural Development I	IDA				2.0							
Rural Development II	IDA							2.0				
Regional Development I	IDA								5.0			
Livestock	IDA					3.0						
Livestock II	IDA									4.0		
Unidentified	IDA							3.0				
Unidentified	IDA									3.0		
Telecommunications I	IDA	0.8										
Telecommunications II	IDA					2.0						
Telecommunications III	IDA								3.0			
Education I (Rural)	IDA						4.0					
Education II	IDA								4.0			
Tambao Railway	IBRD							10.0				
Road Maintenance	IDA						3.0					
Road Construction	IDA					1.5						
Road Construction II	IDA									3.0		
Operations program	IBRD	-	-	-	-	-	-	10.0	-	-	-	10.0
	IDA	0.8	-	6.2	3.5	5.0	10.0	5.0	12.0	14.0	15.5	46.0
	Total	0.8	-	6.2	3.5	5.0	10.0	15.0	12.0	14.0	15.5	56.0
	No.	1	-	1	2	2	3	3	3	4	6	15
Lending program	IBRD	-	-	-	-	-	-	-	-	-	-	-
	IDA	0.8	-	6.2	3.5	5.0	7.0	5.0	8.0	10.0	15.5	35.0
	Total	1		6.2	3.5	5.0	7.0	5.0	8.0	10.0	15.5	35.0
	No.	1		1	2	2	2	2	2	2	6	10
FED and ADB (tentative)					7.0	8.0	8.0	8.0	8.0	8.0		40.0
IDA Loans Outstanding												
- including undisbursed		0.8	-	7.0	10.5	15.5	22.5	27.5	35.5	45.5		
- excluding undisbursed		-	-	0.2	2.3	5.2	9.5	13.9	19.1	25.2		
IDA												
Gross disbursements		-	-	0.2	2.1	2.9	4.3	4.4	5.2	6.1	5.2	22.9
Net disbursements		-	-	0.2	2.1	2.9	4.3	4.4	5.2	6.1	5.2	22.9
Net transfer		-	-	0.2	2.1	2.9	4.3	4.3	5.1	6.0	5.2	22.6

Western Africa Department
July 22, 1971

ANNEX I 5-03 A

All Africa
by Elisa DAGGS



high precipitation
& heavy Rainfall

4. - BASIC DATA

Area: 274,200 square kilometers; 106,000 square miles

Population: 5.2 million (1970 estimate)

Rate of growth: ca. 2 percent per year
Mortality rate: ca. 3 percent per year
Density: 46 per square mile (Mossi area: 108)
19 per square kilometer (Mossi area: 42)

Political status: Independent: August 1960

Per capita GDP: US $59 (1970 estimate)

Gross Domestic Product:	1964	1968	1970 1/
Current market prices 1/			
CFAF billion	69.2	77.9	85.5
US$ million	280.3	315.6	307.9

Estimated rate of growth 1964-1970: 3.6 percent per year

Estimated price increase 1964-1970: ca. 2-3 percent per year

Structure of GDP 1964 and 1970 (percentage)

Origin	1964	1970	Uses	1964	1970
Primary sector	48	44	Consumption	100	101
of which: agriculture	29	27	Gross domestic investment	11	8
livestock	11	11	Exports	5	8
Secondary sector	15	21	Less imports	16	17
of which: industry (including crafts) 2/	11	14			
Tertiary sector	37	35			
of which: administration	10	10			
Total	100	100		100	100

1/ 1970 estimate in 1968 constant prices.

2/ Mission estimates.

Government Finance (CFAF billion)

	Actuals				Preliminary actuals	Budgets	
	1966	1967	1968	1969	1970	1971	1972
Current revenue	8.10	7.82	8.36	9.74	10.49	10.52	10.83
Current expenditure 1/	7.92	7.00	7.28	8.06	8.61	10.52	10.83
Budgetary savings	.18	.82	1.08	1.68	1.88	-	-
Government investment budget 2/	.34	.59	.71	1.10	1.14	.94	
Foreign aid disbursements	5.93	6.87	6.78	7.09			

Money, Credit and Prices (CFAF billion)

	End of period							June
	1964	1965	1966	1967	1968	1969	1970	1971
Money supply	6.06	6.27	6.53	6.60	7.46	8.50	9.14	8.58
Domestic credit	4.02	4.21	3.82	3.33	3.14	3.45	1.79	.79
Government (net)	.01	.13	.20	-.41	-.92	-2.24	-3.84	-5.30
private sector	4.01	4.08	3.62	3.74	4.06	5.69	5.63	6.09
Consumer price index								
African (1958=100)		148.4	151.9	145.1	145.3	156.6	161.7	
European (1964=100)	100.0	102.4	109.8	112.7	113.4	119.3	120.9	
Discount rate								
(percentage per year)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5

Balance of Payments

	CFAF billion			US $ million		
	1968	1969	1970	1968	1969	3/1970
Export of goods	7.0	6.9	5.8	28.4	26.7	20.9
Import of goods	12.0	15.5	15.0	48.6	60.1	54.0
Trade balance	-5.0	-8.6	-9.2	-20.2	-33.3	-33.1
Services, net	-3.6	-2.2	-1.7	-14.6	-8.5	-6.1
Commercial balance	-8.6	-10.8	-10.9	-34.8	-41.8	-39.2
Private transfers	5.4	6.5	6.0	21.9	25.2	21.6
Public transfers	5.0	5.2	5.7	20.3	20.1	20.5
Commercial balance + private transfers	-3.2	-4.3	-4.9	-13.0	-16.7	-17.6
Commercial balance + transfer balance	1.8	0.9	0.8	7.3	3.5	2.9
Capital transactions	0.7	1.1	0	2.8	4.3	0
SDR allocations			0.5			1.8
Errors and omissions	-1.5	-0.5	1.3	-6.1	-1.9	4.7
Net balance	1.0	1.5	2.6	4.1	5.8	9.4
Monetary transactions (increase:-)	-1.0	-1.5	-2.6	-4.1	-5.8	-9.4

1/ Including repayment of public debt.
2/ Excluding capital expenditure from external resources, amounting to CFAF .45 billion per year.
3/ Average rate of exchange: 1 $ = CFAF 255.8

Commodity Concentration of (recorded) Exports (percentage)

	1964	1965	1966	1967	1968	1969	1970
Livestock products	65	63	65	59	54	43	37
of which live animals	56	58	55	51	36	37	31
Cotton and cotton seeds	3	7	8	21	20	30	29

International Liquidity

	End of period							
	1964	1965	1966	1967	1968	1969	1970	May 1971
CFAF billion	3.53	3.46	4.02	4.54	5.48	6.28	10.11	10.86
US $ million	14.3	14.0	16.3	18.4	22.2	22.6	36.4	39.1
Equivalent to (recorded) merchandise imports (number of months)	4.5	4.5	5.2	6.1	6.5	6.1	9.4	10.1

IMF Position (US $ million)

	September 1971
Quota	13.0
Drawings outstanding	.8

External Public Debt (US $ million)

Total debt including undisbursed (as of December 31, 1970)	30.68
Estimated debt service 1970	2.22
Debt service ratio 1970 1/	6.9 per cent

IBRD/IDA operations (US $ million)

	November 1971	
	Commitments	Disbursements
IBRD	-	-
IDA	7.0	0.02

1/ Based on 1970 export figure of goods and services from balance of payments. On the basis of recorded merchandise exports only, the corresponding figure amounts to 12.2 percent.

UPPER VOLTA

SOME SOCIAL INDICATORS

HEALTH (in 1967)

2 million sick of bilharzia
400,000 sick of onchocerciasis of which 40,000 are blind
140,000 sick of leprosy
Tuberculosis is also widespread

There is approximately one physician per 75,000 inhabitants
one dentist per 1,700,000 inhabitants;
one nurse per 4,000 inhabitants

In the Fada N'Gourma area, they have one physician for half a million people.

EDUCATION (in 1969)

Enrollment rates	Average	Primary	Secondary and Technical	Rural
6 - 11 yrs.	10.0	9.9	0.03	-
12 - 18 yrs.	6.3	2.4	1.00	2.9
19 - 20 yrs.	0.98	-	0.66	0.4
Urban areas		65%	17%	-
Rural areas		8.4%	- (*)	6.7%

(*) Difficult to assess how many pupils come from rural areas

CULTURAL LEVEL (in 1967)

Libraries:	4
" volumes:	52,000
Newspapers:	1 daily + 16 non daily
circulation	2,000 daily + 18,000 non daily
	(or 0.4 + 3.6 per 1,000 inhabitants)
Book lendings:	1 a year for 290 inhabitants
Radio sets:	1 for 60 inhabitants
Television sets:	1 for 10,000 inhabitants
Movie theaters:	6
Movie attendance:	(urban) 3 times a year per inhabitant
	(rural) once a year for one out of 23 inhabitants.

Unemployment

The notion of unemployment is extremely difficult to define in a country like Upper Volta and no figures are available. In rural areas there is full employment, and even a lack of manpower, for 3-5 months a year, but almost complete unemployment for the remainder of the year.

5.A - THE COUNTRY AND THE PEOPLE

The following presentation was made in our country program paper of May 13, 1970 (figures are updated):

"Upper Volta, a landlocked country situated north of the Ivory Coast and Ghana, suffers from a variety of serious constraints on development - a poverty of natural resources and unfavorable climate; a population which over a considerable part of the country is too large in relation to available resources, whose skills are as yet poorly developed and whose vitality is sapped by a number of endemic diseases; and, finally, its distance from overseas suppliers and markets.

Natural Resources and Climate

Natural resources

"Soils for the most part are poor, shallow and characterized by a hard pan, particularly on the densely populated central Mossi plateau. The rainy season is rather short and total rainfall and its distribution throughout the season fluctuate markedly, causing great variations in annual crop outturns. The possibilities for supplementing rainfall with irrigation are limited. While grazing areas support about 2.5 million cattle, there is virtually no integration of farming and livestock raising, and limitations of water supply have led to serious overgrazing in parts of the Sahelian region in the north, which is almost entirely devoted to livestock.

"Some mineral resources exist, including high-grade manganese ores in the extreme north and some copper-molybdenum deposits which are still being explored, but the feasibility of their exploitation is still under examination. In any event their exploitation is unlikely to create much employment and will prove worthwhile only if production and transport charges in relation to world market prices will yield the government significant revenues in the form of royalties or profits that in turn will make it possible to finance a development program which will have to continue to focus on the rural areas.

Population

Bad distribution of population

"The population is estimated at 5.2 million and is believed to be growing at a relatively modest annual rate of 2% largely because the death rate is still about 30 per 1,000. While average population density - 19 per sq. km. - does not appear high, about 50% of the population is concentrated in the Mossi country which accounts for less than a quarter of the total area and has the poorest soils. Soil fertility in many areas is deteriorating because there is no longer sufficient land for fallowing and other means of restoring fertility are not economically feasible. Internal migration has provided only limited relief for the overpopulated regions. A considerable and probably increasing proportion of able-bodied men and some women work abroad, primarily in the Ivory Coast and Ghana, for varying periods. While there is little reliable information on labor migration, it is not improbable that about a third of the active male population and perhaps 20% of the total population derives its income from work abroad.

Debilitated human beings

"The "quality" of the Upper Volta's human resources leaves much to be desired. The prevalence of disease has serious repercussions on agricultural productivity in a country where the principal determinant of output is the availability of labor, particularly at critical times of the season. Such debilitating diseases as malaria and bilharzia are endemic in much of Upper Volta. Parasitic infections such as guinea worm are also prevalent, particularly in the southwest. About 400,000 people are estimated to be infected in various degrees by onchocerciasis (river blindness), and of these probably 40,000 have become entirely unproductive owing to blindness. There are said to be some 50,000 tubercular people. Government health services are seriously handicapped by a lack of medicines and other supplies as well as a shortage of qualified personnel. About 85% of the health budget is paid out in salaries. There are only 6 fully qualified Voltaic doctors; five out of eleven public health districts are without a chief medical officer and ten do not have an assistant medical officer.

Meager education facilities

" Only a small fraction of the population has received any formal education and training even though considerable efforts have been made to provide various types of education and over 18% of the budget's current expenditures is devoted to this purpose. Only about 10% of the children of primary school age attend school and the number of people who have finished their secondary and higher education is still very limited. Government services still rely to a considerable extent on foreign personnel who are often not adequately utilized and in some cases are not very well qualified.

Rigid social structures

"Finally, it should be noted that the social structure in the countryside is still strongly hierarchic and traditional. This factor, together with a reluctance to take risks that might jeopardize the bare subsistence that most of the people wrest from the soil, produce a cautious attitude toward change which can only be overcome by persistent patient efforts.

Remoteness from the Sea

Distance from the sea

"As in the case of other landlocked countries in Africa, Upper Volta's geographic position is a considerable handicap. Its only geographic "asset" is its position at the crossroads of a very intensive trade in livestock between Mali and Niger on the one hand, and the Ivory Coast and Ghana on the other. The principal transport link with the coast is the 1145 km railway between Ouagadougou and Abidjan."

* * * * * * * *

It should be noted here that migration flows have continued to intensify. Estimates now are that half a million young Voltaic males now work in coastal countries and their remittances are a growing factor in Upper Volta's external balance.

Another presentation is made in annex I, which is extracted from a book by Elisa DAGGS: All Africa - All its political entities of independent or other status. - Hastings House, New York, 1970.
Also attached are Notes on Life on the Mossi Plateaux, and Country Notes; Department of State.

NOTES ON LIFE ON THE MOSSI PLATEAUX

(CENTRAL UPPER VOLTA)

Tribal characteristics

The Mossis are a proud people, feudally organized since the 10th century under an Emperor, the Moro-Naba, who is revered as a living god. The present Moro-Naba, who resides in a palace in Ouagadougou, is Nr. 34 in the dynasty.

The Mossis constitute 50 percent of the population of Upper Volta, although they live on 25 percent of the soil. Hierarchy is strict among the Mossis. Social order and discipline of work characterize them among African tribes. The The villages have about 700 inhabitants as an average. Each village has two chiefs: one who commands people, the Teng-Naba, and one commands the soil, the Teng-Soba. Population density is higher than in any other sahelian area, and reaches 220 inhabitants per square mile close to the cities. The birthrate is extremely high, at 49 per thousand, but the deathrate is high also at 33 percent, and one child in five does not reach the age of one.

High fertility

Social beliefs tend to preserve the high fertility: to perpetuate the family is a duty toward the ancestors; numerous children are a manifestation of strength, and they provide a substitute for social security. Any attempt to control the birthrate would have a traumatic impact.

Poor resources

Unfortunately, the soil is poor - poorer than in other parts of Upper Volta -, and agricultural techniques are very primitive. Hence a growing dearth of land, and a multiplication of conflicts about land titles which generates pressures for a more modern land tenure system.

The temptation to emigrate

Furthermore, the young are increasingly aware that tilling the soil is not the only possible source of income, and especially of monetary income. Hence the great temptation for the young to emigrate, whether temporarily or permanently, to better endowed countries. This is not a new phenomenon. Old legends tell about caravans going to Komassi and Salaga (in Ghana). Furthermore, emigration is not frowned upon. Those emigrants who return to the village after surviving the wild animals and the other perils of the road are feted as heroes.

Lack of water

For those who remain in the village, the paramount problem is water. Water points are rare and widely separated. People, and especially women, often have to walk long hours to fetch a bucket of water at some well. One reads about the story of a woman who had walked to a well 12 miles away from her place and, upon her return, had her bucket hit and spilled by a goat; she had to walk 24 miles again.

Crops and fertilizer

The main crops here are maize, millet and sorghum which are grown in the fields close to the village, with short rotations (three years). The only fertilizer is manure, but the farmer does not raise cattle, he leaves that to the Peulhs, who tend the cattle over the stretches of land between the villages. Therefore, animal manure is rare and human manure must be used.

Extensive agricultural techniques

Between the villages are the "bush fields" where the long fallow period (up to 30 years!) is used. The crops grown in these fields are the less demanding ones. Actually, the farmer appears to be getting a low return for this work on the "bush fields", and he seems generally to realize that intensive cultivation gives better results, but he critically needs fertilizer. Women and children are sent on errands to collect manure left by straying animals....

Lack of alternatives

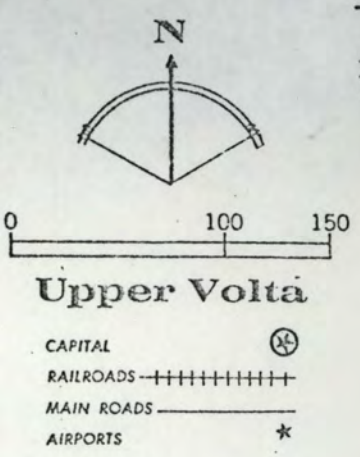
That is the lot of the Mossi farmers. For seven months, they have nothing to do, but nobody has yet shown them what they could usefully do. During the remaining five months, they work hard (fourteen hours a day when rains are not falling), but in spite of their efforts most of them constantly feel at the mercy of weather and threatened by famine. In this precarious situation, the elders frown on innovations and the younger farmers are not encouraged to take initiatives. Should they fail, migration only would save them from hunger. On the other hand, if the crop is good, the farmers are ill equipped to store it, they must sell it at any price, but if they need to buy food during the critical period of the year, they will find prices very high.

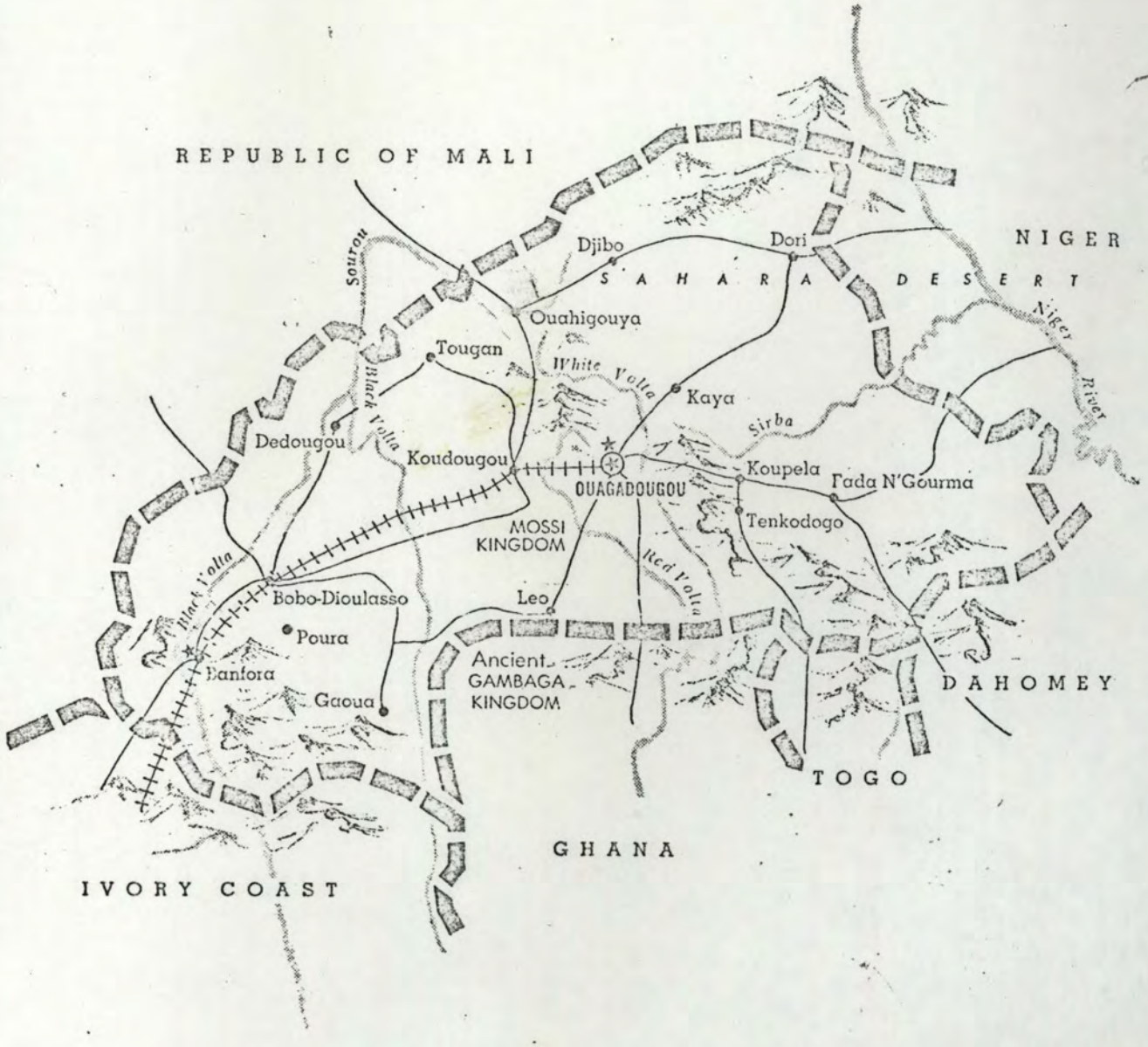
What future is there in such circumstances for the young farmers? Why should they not rather try their luck in the cities or in the coastal countries?

(After a monograph by Paul T. Rouamba, Upper Volta's Ambassador to the US).

ANNEX I

All Africa
by Elisa DAGGS





UPPER VOLTA, the 29th largest country in Africa, covers 113,000 square miles, an area slightly larger than the state of Colorado. It lies in the center of West Africa, 500 miles from the Gulf of Guinea and 1,000 miles from the west coast of Africa.

Boundaries: On the northwest, the Republic of Mali; northeast, the Republic of Niger; to the south, Dahomey, Togo, Ghana, and the Ivory Coast.

The land is a wedge-shaped plateau consisting mostly of layers of sandstone and laterite. It rises to 1,000 feet above sea level in the northwest. Here, in the semi-arid desert, the "harmattan" (hot desert wind) adds to the harshness of a region that can hope for no more than 10 inches of rainfall a year. As the "wedge" slopes to the south, it changes to rolling hills and wooded savannahs that provide lush grazing.

Lions, deer, cheetahs, elephant herds, monkeys, and rare birds fill the bush. The lowlands and river valleys are fertile farmlands and rice paddies. The extreme southwestern bulge of the country is rich in oil palms, fruit trees, cotton fields, and a bit of gold mining. This is the market and commercial area.

Rivers: The Red, Black, and White Volta rivers and the Leraba, Comoe, Sourou, and Oti rivers flow south to the Gulf of Guinea, the three Voltas merging on the way. The Sirba and the Tapoa drain eastward into the Niger River. During the rainy season, violent storms and tornado winds at the heights of the rocky plateau turn the rivers into unnavigable, raging torrents that flood over the lowlands in veritable lakes. In dry months, the rivers turn to trickling, intermittent streams or dry beds.

The capital: Ouagadougou has a population of over 160,000. The other centers are Bobo-Dioulasso, 45,000; Koudougou, 18,000; Ouahigouya, 10,000; Banfora, 5,400; Kaya, 5,000; Dedougou, 3,500; plus scattered small towns and tribal villages.

Transportation: Facilities are more modern than those of most West African countries, although Upper Volta is one of the most educationally, and industrially needful, of all the African nations. Almost one-half of the 733-mile Mossi Railroad, which starts at Ouagadougou, lies in Upper Volta. It then crosses into the Republic of the Ivory Coast, ending at the port city of Abidjan on the Gulf of Guinea and giving Upper Volta access to the sea. Country markets and towns are linked by 10,000 miles of roads, 1,300 of which are paved highways. International airports at Ouagadougou and Bobo-Dioulasso and some 30 airstrips supply passenger and freight service within the country and connect Upper Volta with other African countries.

Population: Around 5,300,000, including 3,000 non-Africans (mostly French), concentrated in central and southern parts; eastern and northwestern frontiers are sparsely populated.

Population density: An average of 46.9 persons per square mile.

Religion: 75%, Animist; 17%, Muslim; around 7%, Catholic.

Illiteracy: 97%; in school, 6%.

One doctor for every 56,900 persons.

Economy: Agricultural, livestock.

Chief exports: Livestock, fish, cotton, peanuts.

Food crops: Sorghum, millet, corn, cassava, yams.

Trade balance: Deficit.

Per capita income: $70.00 a year.

Official language: French.

Monetary unit: CFA franc (247 = $1.00).

Government: Republic.

Armed forces: Around 3,000; security and police force, 1,500.

Upper Volta

12

IN THE ORDER OF INDEPENDENCE

RÉPUBLIQUE DE HAUTE-VOLTA

On August 5, 1960, the Republic of Upper Volta became the twelfth nation to gain its independence as a result of the Black Nationalist Revolution. It was the tenth French West African territory to break away from French rule after twenty-three years (1896-1919) as a partial protectorate and forty years as a colony and Overseas Territory (1919-1960). It contains within its borders a powerful Black empire. This Kingdom of the Mossi people lies in the heart of the new republic, spreading over the fertile basins of the three Volta rivers. The national capital, Ouagadougou, is also the royal city and core of the Mossi Empire.

The ancient history of the Republic of Upper Volta, what little is known of it, is written in the legends of the Mossi tribes, who are believed to have migrated from the east, crossing the Niger River in about the eleventh century. Moving across the northern regions of what is now Ghana, they established the small kingdom of Gambaga. From here they followed the White Volta to the north, conquering scattered tribes and expanding into the center of what today is Upper Volta. Here, some nine hundred years ago, they organized the powerful Black Empire that withstood the invasions of Berber traders, Muslim Arab hordes, European colonizers, African nationalist revolutionaries, and Communist subversion (as of 1969).

A romantic legend, woven into the austere Mossi history, tells of an ancient "naba" (king) of Gambaga who had a beautiful daughter named Nyennenya, whom he loved dearly. Never wanting her out of his sight, he took her with him on military forays as he conquered new territory to expand his tribal empire. On one of these journeys the princess rode her fine stallion into the woods adjoining the royal encampment. Deep in the forest, Nyennenya came upon a young hunter named Riare. The princess and the young hunter fell in love on sight and were soon wed in defiance of the king's wishes. When a son was born he was named Ouedraogo, "The Stallion," in gratitude to the horse that had taken the princess to the young hunter.

The king forgave his daughter and grew to love his grandson, making him heir to the throne of Gambaga. On coming to power Ouedraogo set a new pattern of rule for the expanding Mossi Empire, dividing it among

his own four sons under his over-all suzerainty. Moving the royal village north to Ouagadougou, he ruled as the Moro Naba of Ouagadougou. Under this system of autonomous, federated states, which existed more than a hundred years, the states of Tenkodogo, Oubritenga, Zandomo, and Fada N'Gourma came into existence. The first two remained in the Mossi Empire, but Fada N'Gourma, lying to the east, eventually broke away and became, in name at least, an independent principality inhabited by many people of the Yarce and Gourmatche tribes. In the fourteenth century the state of Zandomo, centered around Ouahigouya, became the Yatenga Kingdom, and it still exists today, with its own *naba*. Both Yatenga and Fada N'Gourma are, in reality, under the suzerainty of the Moro Naba of Ouagadougou, whose family dynasty of forty-seven princes, was established long before the reign of Ouedraogo "The Stallion."

The Mossi Kingdom lies within that narrow strip of semi-desert and savannahs that fringes the Sahara on the south, stretching across Africa from the Red Sea to the western "hump." Centuries ago the Arabs named this area the Sudan, "Land of the Blacks." This narrow corridor was, from the seventh to the seventeenth century, the theater of invasion, "jihads" (holy wars), terror, and bloodshed as the Hamitic and Semitic, "white tribes" from north of the Sahara and east of the Red Sea invaded the domain of the "Black tribes" of the Sudan, conquering, enslaving, and converting the Black people by force to the Islamic faith. However, the Mossi Empire, established on the edge of this conflict, remained a stronghold of pure Black culture, an island of traditional Animist faith in an Islamic sea ruled by Muslim kings and their vast armies. The Mossi's powerful, well-organized forces and fierce independence deterred the invasions that swept around them.

Long before the Muslim incursions, there were migrations into the Sudan by the Berber people from the Mediterranean coast and the Jewish tribes from Cyrenaica (modern Libya), who controlled the Sudan through trade. They settled in the fourth century among the Songhai tribal people who farmed the banks of the Niger River. Dominating the Black people they established the Ghana Empire, first of the great medieval kingdoms of the Sudan. In the eighth century, after the founding of the religion of Mohammed at Mecca, Arab tribes invaded the north of Africa and dominated and converted the Berbers.

In the tenth century new waves of the fanatical Arab Bedouin tribes came out of the east from Arabia to overrun the whole of North Africa. These invaders crushed the remains of the Berber civilization and turned south across the Sahara into the Sudan. This was the end of Berber and Jewish rule in the Sudan and the beginning of Arab domination of the Sudan's Black people. The Arabs gained control of the trans-Sahara trade caravans that brought salt from the north and took back gold and Black slaves from the south. Vast empires rose and fell along the Niger as the invaders grew rich, dominated the Black people—converted and intermarried with them, raided their villages, and sold them into slavery. Over the centuries, the racial characteristics of the Black, through intermarriage, predominated in the conquering "white tribes," and the Arabs, like the Berbers and the Jewish tribes before them, were assimilated by the Black people. Berber leaders were pulled down by Black chiefs, who in turn were replaced by Arabs who, too, eventually gave way to Black tribal chiefs.

The Ghana Kingdom, which spread across the Sudan from the bend in the Niger to the Sénegal River, declined in the eleventh century, and the Mali Empire rose from its ruins, led by a Black Malinké tribesman. This empire became the most powerful of all the medieval African kingdoms of the Sudan. Mali reached its apex in the early fourteenth century, went into a decline, and was overrun by the Gao Empire under a Songhai Black leader.

The Mossi Empire remained largely uninvolved in the invasion and conquest that

blanketed the Sudan from Lake Chad to the Atlantic Ocean for a thousand years until the Mali Empire began to crumble. Then, while Tuareg desert warriors from the north were raiding Mali's tottering outposts in 1333, Mossi tribes from the northernmost regions of their empire (the Yatenga Kingdom) attacked and sacked Timbuktu, routing the Mali forces. The Mossi tribes then fought armed bands from the Gao Empire that was rising out of the fragmented Mali states.

In the following hundred and fifty years the Gao Empire expanded as far east as the Sultanate of Agadès in what is today the Niger Republic. Under its greatest emperor, Mohammed Askia (Askia Muhammed) I, a Black Songhai (Songhay) converted to Islam, Gao enveloped the Mossi Empire on three sides. Its armies moved south along the Mossi frontiers down the Niger Valley, subjugating all the Black tribal states and chieftaincies except the Dogon tribes hidden in their inaccessible cliff villages in the Hombori Mountains – and the Mossi.

Gao's expanding armies then turned to the east and overran the Hausa states in what is today northern Nigeria, again attacking, conquering, and converting all but the Mossi Empire, which remained an isolated Black enclave. But, in the next three hundred years, all trace of the great Muslim empires of the Sudan slowly faded into the sands. By the beginning of the eighteenth century the Mossi empire, though still intact, had been weakened by the continuous attacks from all sides by militant Muslim tribes.

At about this time, French military expeditions moving in from the western Sudan (by this time known as "the French Soudan") were thrusting eastward into the lower regions of what is today Upper Volta. The only Europeans to be in contact with these regions before the French expeditionary forces were renegade white soldiers of the French Foreign Legion who traveled with the Islamic armies of the Arab invaders. It was in 1896 that the French reached the Mossi Empire and a young lieutenant by the name of Voulet audaciously attacked Ouadagougou and took it with his force of some seventy riflemen fighting against the spears and deadly arrows of thousands of fierce Mossi warriors. It has never been believed that the *Moro Naba's** warriors were really defeated. To the contrary, it is conjectured that as the lesser of two evils the *naba* preferred domination by unknown white overlords to the certain defeat of his army and the destruction of the Mossi Empire if attacked by both the French and surrounding Muslim Negro tribes at the same time. The French established a protectorate over the original state of Ouagadougou, administered it through the Moro Naba, and the Mossi Empire grew strong again.

At this time, all the regions of what is today the Republic of Upper Volta including the Mossi Kingdom were shown on European maps as part of a vague expanse of territory reaching to the Gulf of Guinea – designated as "The Ivory Coast." But by 1919 the French had gained sufficient control of the outposts of the Mossi Empire and surrounding tribal states to unite them, under a lieutenant governor, into a French territory called *Haute-Volta* (Upper Volta). However, the new territory was short-lived.

In 1932 France divided it up among the surrounding colonies of Niger, the Ivory Coast, and Soudan (now Mali). The reason supposedly was the inability of the territory to become self-sustaining, but the action was believed to have been, in reality, a political move brought about by pressures from the colonial governments of the three neighboring French territories. The Ivory Coast could thus add to its rich territory and acquire new workers for its big, French-owned coffee plantations. The French interests in the Soudan and upper Guinea also coveted the supply of young Mossi migratory workers, and the French traders along the coast wanted to expand their markets. The French colonial administration finally succumbed to these pressures, dividing up the Upper Volta territory, and incidentally,

* *Naba*, meaning King in the Mossi language; the *Moro Naba* is King of the Mossi.

the Mossi tribes with it. The plan did not work. The distances were too great, transportation was poor, and the Mossi workers went into the British Gold Coast Colony (today, Ghana), where wages were higher than in the French territories.

In 1947 the territory of Upper Volta was reconstructed, ostensibly on the demands made by the Moro Naba directly to President Vincent Auriol of France. In an effort to make the territory self-sustaining and to aid the Mossi economy, the Mossi railroad – which already connected Bobo-Dioulasso (in southwestern Upper Volta) with Abidjan, the port-capital of the Ivory Coast – was extended into Ouagadougou.

This new arrangement of the jigsaw puzzle in the western Sudan united the Mossi tribes as they had been unified in 1919, but fundamentally the move was a bit of political map-making. The French hoped to stem the increasing local power of the anti-French Communist faction of the interterritorial *Rassemblement Démocratique Africain* (RDA – African Democratic Rally), which was rapidly dominating the tribally split Upper Volta territory. The French had been fighting the RDA since its founding in 1946 by Ivory Coast leader Félix Houphouët-Boigny and strong Upper Voltan leader, the late Ouezzin Coulibaly – one of West Africa's great political figures. The reshuffling of power in the area was believed, in part, to prevent a complete takeover of the RDA by the radicals centered around labor leader Sékou Touré of Guinea.

With the 1947 reconstruction of the Upper Volta, the RDA was restricted in the territory But in the form of a local party, *Union Démocratique Voltaique* (UDV – Voltaic Democratic Union), it gained control of the Territorial Assembly in 1948, winning sixty-two out of sixty-seven seats when the Mossi party lost the election because of internal tribal dissension.

In the years leading up to independence, there was no radical opposition or violence in the Upper Volta. Consequently, no political messiahs or "mystiques" were produced, (or *vice versa)* and the territory passed smoothly through the preparatory stages of independence.

Tribal strongholds similar to the Mossi Kingdom existed in other new African nations at the time of their independence. And in some cases, where the new Black political leaders were insecure and power-hungry, these tribal strongholds were ruthlessly destroyed as traditional rulers were deposed. There are those in Upper Volta who would like to see the Mossi Empire crushed. But today the all-powerful Moro Naba of Ouagadougou, the symbol of the "Sun on Earth," still rules well over a million and a half Mossi tribal people – almost half the entire population. His empire, which dominates the central and northeastern regions of Upper Volta, must be reckoned with politically by any national government.

The Mossi have maintained their rigid way of life as they have lived it for centuries. Their highly organized patriarchal society is built on a sharply defined constitution, strict laws of behavior, elaborate etiquette for every occasion, and a fierce defense of their independence.

The present Moro Naba Kougri-Mosi is the thirty-fifth direct descendent of the original dynasty.

Besides the 2,000,000 Mossi, many other tribal peoples make up the population of Upper Volta. They fall into three groups: the Voltaic, the Mandé, and the nomadic peoples.

The major Voltaic tribes are the 300,000 Bobo, the 125,000 Lobi, the 190,000 Gourounsi, and a few smaller tribes. *The Bobo,* mixed with the Mandé-speaking Dioula, inhabit the Bobo-Dioulasso area between the two branches of the Black Volta River. Their society is one of clans; each of their villages consists of one castle-like multiple dwelling. The numerous gods and spirits of their Animist cults are represented at ceremonies in masks and grotesque costumes. Their superdeity, the "Wuro," is consulted on all important family matters. Unlike most African tribal customs whereby the coming-of-age initiation

Young Tuareg at desert well

Urban people and students

of young tribesmen is by age group, the Bobo initiation is a family ritual conducted by firelight in a secret language of the family. The Bobo are great artisans, well known for their metal-casting.

The *Lobi* tribes lives around Gaoua in the southwestern pocket of Upper Volta. Each of their multiple dwellings is a terraced fortress housing a family clan. The Lobi are skillful fighters, hunt with bow and arrow, and are good farmers. The *Gourounsi* live in the Koudougou area along the Red Volta. Their tribal characteristics are the opposite of those of the Mossi. They are obstinate, undisciplined, and highly creative. They have been readily converted to Christianity.

The 250,000 *Mandé-speaking* people make up the Samo, Tougan, Marka, Dioula, and Sénoufo tribes that spread across the top of modern Ghana, Guinea, the Ivory Coast, southern Mali, and Sénégal, spilling over into Upper Volta. Around 50,000 Sénoufo drift back and forth across the Upper Volta-Mali frontiers.

The nomadic (Berber-Black) *Fulani* and *Tuareg* (Berbers) herd their cattle and goats

over the arid wastes of the Sudan, oblivious of modern borders that divide up the semi-desert. They number, including the *Rimaibes* who were once the slaves of the Fulani, around 100,000. They are devout Muslims. Some of these tribes have become semi-nomadic and settle periodically in the far northeast. The merchants and traders of West Africa, the *Hausa*, also inhabit the northeastern regions.

In the twentieth century, as for centuries past, the Moro Naba of Ouagadougou lives in elegance and rules his domain with great dignity, surrounded by his court of ministers and dignitaries, who adhere to the strictest ancient protocol. His court drummers are talented musicians and his trumpeters are mounted on fine horses. The entire patriarchal Mossi society is based on rigid ceremony and discipline, and the people live in an orderly, dignified manner. Each family has its cluster of huts, which conceal a small courtyard. Each family "yiri" (compound of huts) is placed in the center of a plot of land, thus insuring a maximum of privacy for each man and his neighbors. The industrious Mossi farm their lands as meticulously as they live, and they

A woman of the Bobo-Dioulasso

migrate seasonally, as they have for more than a century, to work in the fields and timberlands of what are now the Ivory Coast, Ghana, and Guinea. But always the Mossi return to their homes after the planting and harvesting are over. Today, this Mossi migratory work force is the largest in all Africa. It was a Mossi labor force that constructed the Vridi canal at Abidjan in the Ivory Coast.

When President de Gaulle's Referendum of September 28, 1958, offered the French Overseas Territories of Africa their choice of autonomy within the French Community, the status of a department of France, or complete independence, Upper Volta chose to remain a member of the Community, as the autonomous *République Voltaique*. In the following year, the new nation changed its name to *République de Haute-Volta* — The Republic of Upper Volta.

The Republic's first president, Maurice Yaméogo, was born in 1921. With a secondary-school education, he became an educated man by standards in Upper Volta, where fewer than 4 percent of the people were even exposed to secondary schooling and where, in 1961, the country had only ten college graduates. Yaméogo taught school, and before entering politics he worked as a medical assistant in the fight waged by the French against sleeping sickness. In politics he rose to the top on all counts. He is a Mossi wearing on his face his tribal markings. He is a Catholic by schooling and friendly to French influence. He was an officer in the *Confédération Française des Travailleurs Croyants* (CFTC — French Federation of Christian Workers) and in 1958 became a member of the UDV (*Union Démocratique Voltaique*), the powerful local branch of the interterritorial RDA. With these prerequisites and connections, Maurice Yaméogo was very busy politically from the age of twenty-five (in 1946) until independence. Yaméogo served in twelve top government posts, (and on the death of Ouezzin Coulibaly, became Prime Minister) before being elected to the presidency of the Republic of Upper Volta in 1960, at which time he was only thirty-nine.

On assuming the presidency, Yaméogo established his image as an African "political strongman" by banning the major opposition party and jailing many of its leaders. For five years his UDV party remained in power while the opposition impatiently "waited in the wings."

Upper Volta, together with Dahomey, Niger, and the Ivory Coast, is a member of the *Conseil de l'Entente* (Council of the Entente), which provides a common solidarity fund of financial assistance to member countries. The fund is fed by France through the Fund for Aid and Cooperation (FAC, formerly FIDES) which supplies investment, social development, and technical assistance to former French territories that have signed agreements of cooperation with France. France also balanced Upper Volta's trade deficit buying its exports at higher-than-world-market prices. FAC poured $44 million into Upper Volta between 1947 and 1957. The United States gave more than $2 million in aid in 1961 and has continued to provide aid and loans. The United Nations provided about $586,000 in 1951, with similar contributions in subsequent years. For the eight crucial years following independence the West, particularly France, was (with all due respect to the Moro Naba of Ouagadougou) the *golden* "Sun on Earth" to the land of the Mossi in its economic and financial struggle for existence in the aggressive, Black African world rising around it.

Upper Volta took its place among the new African nations. It was an important member of the Inter-African and Malagasy Union of the fourteen former French territories of Africa plus the Congo (former Belgian colony).

At least 98 percent of the economically active population of the country continued as it had for centuries to engage in the raising of livestock and in subsistence farming. The country's principal wealth is in its livestock, which accounts for more than half its total exports and, in number, exceeds its human population. There are an estimated 3,000,000 cattle, 3,000,000 sheep and goats, and 400,0000 horses and donkeys in the country. As in much of

rica, Upper Volta suffers from the centuries-old problem of water for its stock in the semi-arid grazing lands of the north and east. The rainfall is erratic and the rivers are unharnessed.

One of France's greatest contributions to Upper Volta was made through the *Service du Génie Rural*, which is devoted to the task of soil conservation and reforestation. This service has utilized all possible ways of supplying water for the villages, livestock, and crop-irrigation. More than two hundred wells and many small dams were completed before independence in the northeast, where the need for water was crucial. Two-fifths of the entire land is completely denuded of forest, further aggravating soil erosion while the harsh, hot winds that blow off the nearby desert further damage the dry soil.

A viable economy cannot rest on Upper Volta's agricultural production alone. Even if it could be increased at a phenomenal rate, it could not feed the population, now totalling more than four million and expected to double in the next thirty-five years. Eight years after independence there was a minimum of small industry in the country, consisting mostly of plants for processing shea oil, cotton, rice, peanuts, sisal, soap – and the manufacture of soft drinks, bricks, cement, and other such local necessities.

Labor unions were strong, and the Ministry of Labor maintained an office for control of the more than 300,000 Upper Volta farm workers who continued to migrate seasonally into Ghana, Guinea, Togo, the Ivory Coast, and Mali.

Gold has been mined around Poura and Leo since 1939. It has also been discovered in the Lobi country. Iron mines in the north have been primitively worked for many years. Manganese, tin, copper, and graphite deposits have been probed, but the extent of Upper Volta's underground wealth has not been explored, though a rich mineral discovery is the country's hope for a self-sustaining economy.

In Upper Volta the tribal culture is deeply embedded and the colonial imprint is very

Traditional housing of the south

faint outside the few, little cities. It is in evidence in Bobo-Dioulasso, the trade center of the south, and in modern French architectural "touches" which fit harmoniously into the little desert capital of Ouagadougou, blending with the native huts and markets against a background of brilliant sun, flat desert bush, and pale blue sky. A sun-bleached Catholic cathedral which could come right out of a small French town takes its place beside the Sudanese palace of the Moro Naba. Sudanese-type, rectangular "banco" (sun-baked mud) houses stand wall to wall, unawed by modern government and school buildings. Nearby the ancient native market that at independence traded its place in the sun for modern indoor quarters overflows again into the street, and a modern Arab mosque rises pristine in the blazing sun. Small, modern European houses line up along a broad, tree-lined avenue called Bois de Bologne. Traditional African huts fringe the city outskirts. One of the most modern and completely equipped hospitals in all French-speaking Africa rises in the small city's center. Modern conveniences are scarce, however, in Upper Volta, and a soft drink may cost half a dollar. A visa costs twelve dollars.

By constant contact with the countries around them through their migratory work force, the people of Upper Volta are, in many ways, more "aware", particularly politically, than would be expected in a geographically isolated country.

Although Muslim *jihads* surrounded the Mossi Empire from the eighth through the seventeenth century, European colonists invaded it in the nineteenth century, and African power politics engulf it in the twentieth century, the Mossi Empire remained after independence an island of ancient African culture. It is still a feudal structure – a political power in the heart of a democratic nation. This tribal empire is both the strength and the weakness of the new nation. Is it possible that history might repeat itself, and the new Republic of Upper Volta find itself in much the same position it held as a French territory in 1932, when it was divided up among the colonies around it? At independence its Communist-oriented neighbors most surely coveted its land, its workers, and its meager wealth of stock and agricultural produce. Upper Volta's old neighbors – Ghana, who was always interested in a means to expand its small country, and Mali, thwarted in its efforts to overrun newly independent Mauritania, and "always-hungry" Guinea, eyeing the agricultural talents in Upper Volta – again threatened the nation's sovereignty through political persuasion and Communist infiltration. Upper Volta was the missing link that could geographically connect the three socialist-oriented nations. (With the overthrow of Nkrumah's Ghana dictatorship in 1966 and Keita's Communist-oriented government in 1968 this threat no longer existed.)

Although he flirted politically with his Communist-oriented neighbors, President Yaméogo seemed quite aware of the precarious position of his new country. By 1964 he openly broke with Ghana-Guinea and Mali. At this time Yaméogo was believed to be, in reality, oriented toward the West because it might help him to sustain his small independent nation, and not because he felt there was any place in Africa for any dominating foreign force or ideology – Communist or "western." In statements made in early 1965, he and the heads of state of Niger, the Ivory Coast, Sénégal, and other conservative African countries attacked President Nkrumah of Ghana for his attempts to "impose arbitrary socialism on all of Africa," for "his ideas that he could rule Africa," and for "his ties with Communist China." Following the assassination attempt against President Diori of neighboring Niger in April 1965, President Yaméogo, along with other African leaders, again condemned Ghana for harboring "subversive groups." Dissident factions from all over Africa had long gathered in Ghana, where they were supported by Nkrumah's government while they plotted the overthrow of other legal governments of new African nations.

President Yaméogo, very articulately in his adopted French language, made his feelings very clear to Ghana regarding its aggressions. But he had weapons even more persuasive than words, which he hinted that he might use against Ghana in case of further aggression. These weapons were the Red, the White, and the Black Volta rivers, whose headwaters drain the high plateaus of Upper Volta. The three rivers then flow to the south, converging as they cross Ghana to the sea. Ghana's $160-million Volta River dam at Akosombo (a part of the largest hydroelectric and flood-control project in Africa) started operating in September 1965. But President Yaméogo warned Ghana that, unless President Nkrumah discontinued his hostile actions, he could and well might cut off Nkrumah's water supply. Just how this was to be done was not spelled out. But if the Arabs could threaten to divert the River Jordan, it was certainly possible that the upper waters of the three Volta rivers, could be cut to a trickle by the time they reached the dam site in Ghana. Even the Oti River, which feeds into the Volta in the south of Ghana above the dam, has it source in the Republic of Upper Volta. Yaméogo said, "We can choose to allow the dam to work or not, because we control the flow of the river." By the spring of 1966 it was of little concern to either Yaméogo or Kwame Nkrumah which way the Voltas would flow in the future, for both had been overthrown in military *coups d'état*. Nkrumah was ousted for extravagance and corruption on a grand scale, Yaméogo for reasons of similar circumstance.

By the time the fifth year of Yaméogo's presidency drew to a close in 1965, Yaméogo, like many other new African leaders, had been caught in the turning African political tide. Like many Black men who worked for independence and came into power with it he had succumbed to the temptation of extravagant living, irresponsible government spending, nepotism and tribal favoritism. All a part of the circumstance and natural pitfalls in the new Africa.

Unfortunately President Maurice Yaméogo complicated the circumstances which had on their own grown difficult enough by the end of 1965 in Upper Volta.

The declining economy, labor unrest and lack of a program to give the people promise of improvement in their lives, were beginning to evoke questions. Increased extravagant government and personal spending by the president and his aides was arousing resentment.

The president added to these ingredients, which were sure of themselves to produce a good deal of trouble, the untimely divorcing of his wife, the mother of six or more of his children. It was said that she was cruelly sent back to her native village. Although Africans are as a whole prone to "live and let live" as to a leader's personal life, this did not further endear the president to his people.

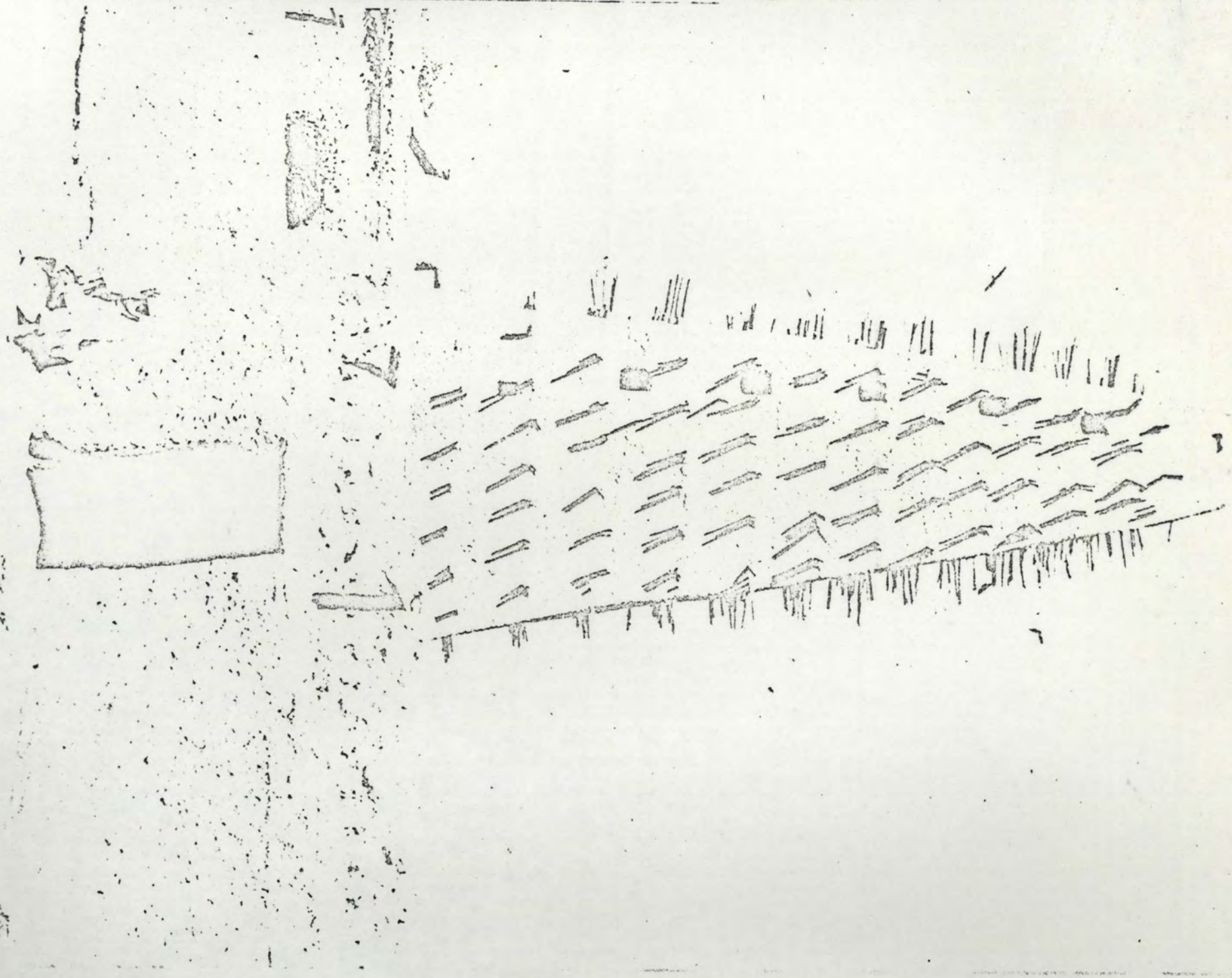
This was followed by his marriage to "Miss Ivory Coast" of 1965 and an extravagant honeymoon in Brazil. At the same time Yaméogo had put in process the building of a costly presidential palace in his native town of Koudougou.

Seemingly unmindful of the temper of the people, he introduced an austerity program that, along with other decrees, cut civil-service salaries. This move brought open protest from the labor unions, which were very strong in Upper Volta with its large migratory-labor force.

On the last day of December 1965 crowds, led by union demonstrators, gathered in the streets and surrounded the palace in Ouagadougou. A demand went up for Yaméogo's resignation. With no one else to turn to, the people asked the army to take over the government.

For four days President Yaméogo was a prisoner in the palace, surrounded by mobs. As the crowd became more hostile and demanding, he too called on the army. The crowds refused to move.

After long hours of consultation with Army Chief of Staff Colonel Sangoule Lamizana, the president consented to step down and relinquish the government to the army. Colonel Lamizana remained faithful to the president



(in his own way) until Yaméogo resigned. However, without the active support of Lamizana's troops to disperse the rioters, Yaméogo had no choice but to "resign."

Until this time Colonel Sangoule Lamizana, the man who was to become the second president of Upper Volta, was virtually unknown outside the areas of his military functions.

This take-over of government in Upper Volta, was a new kind of military *coup d'état*, if it could be called a coup – when the army was requested to take control by both the president and the people and there was no opposition within or outside the government. But, unusual as it was, on January 3, 1966 the serious, retiring, methodical head of the army took over the government.

The new president was born in 1916 in the village of Dianra in the northwest, along the Mali frontier, in the region of Tougan. (This area was once a part of the French Soudan [modern Mali] and was still claimed by Mali when the Tougan region became a part of Upper Volta in 1941.) President Lamizana was, more surprisingly, not a member of the Mossi tribe that controlled Upper Volta politics but a Bambara, the dominating tribe of modern Mali and the tribe to which Mali's ex-President Modibo Keita belongs. Lamizana speaks Bambara and French fluently.

Colonel Lamizana, who entered the French armed services at the age of twenty, remained a soldier. He was stationed in Sénégal where he finished his secondary schooling while in the army. He was later stationed in North Africa and in 1949 was sent to Paris where he taught the Bambara language in the Centre of African and Asian Studies. He was then moved into active duty in Indochina and from there was sent back to be stationed in the Ivory Coast and also to serve in North Africa. Colonel Lamizana holds the French *Légion d'Honneur*.

At independence he returned to the Upper Volta to assist in organizing a "mini" army for the new country and became the first Chief of General Staff of Upper Volta's Armed Forces.

On taking over the government from Yaméogo he declared himself both President and Prime Minister, and also took the portfolios of Minister of Defense, Information and Youth.

Ex-President Yaméogo was put under house arrest and in December of 1966 was reported to have attempted suicide. Shortly afterward, in January 1967, Lamizana announced that the military government would remain in control for four more years.

In 1969 former president Yaméogo was sentenced to five years at hard labor and fined the equivalent of two hundred thousand dollars for embezzlement of an alleged three million dollars while president.

For his first two years in office President Lamizana made a good record. He balanced the budget (averaging $35,000,000 annually) for the first time in the new country's existence (and long before). He won the respect of other African leaders and maintained the Upper Volta's position in African organizations: Common Afro-Malagasy Organization, OCAM, of French-speaking new nations; the Organization of African Unity, OAU; and the *Conseil de l'Entente*. Cotton production in the country was increased and efforts to improve livestock were made. Still, the new president faced the same old problems.

After wiping out the austerity measure introduced by his predecessor President Lamizana soon had to impose new and even more severe thrift measures, which included salary cuts and increased taxes, and even actual contributions to the government by way of two weeks' "donation" of salary each year in civil-service jobs. He suspended all political-party and trade-union activities. This all sounds very familiar and usually occurs in a new African government just before a sudden change takes place.

However, in 1969 President Lamizana still held the trump card – the military force (no matter how small) – in his hand.

Mosque of Bobo-Dioulasso

Upper Volta

AREA, GEOGRAPHY, CLIMATE

Upper Volta is an independent country situated between the Sahara and the Gulf of Guinea in the loop of the Niger River. It comprises 105,900 square miles (about the size of Colorado) on a savannah plateau, 650 to 1,000 feet above sea level. Most of the country lies beyond the humid "rain belt" or "rain forests" which extend some 400 miles northward from the sea.

The land ranges from the greener area of the south with its forests and fruit trees, to the central area savannah with fields, bushes, and scattered trees, to the desert-like sandy areas of the north.

Upper Volta borders the Republic of Niger in the east, Mali in the north and west, and the Republics of the Ivory Coast, Togo, Ghana, and Dahomey in the south.

The country's main rivers, which are unnavigable, flow south toward the Gulf of Guinea, although several small rivers in the east drain into the Niger River. Low hills separate the Black, Red, and White Volta River Basins from the Niger River Basin.

The climate is tropical and seasonal -- warm and dry between November and March, hot and dryer from March to May, and hot and wet the rest of the year. During the cooler weather (December-February) daily temperatures average about 85°F with almost no humidity; nights are pleasant with temperatures dropping sharply after sundown to around 60°.

The heat and humidity of the summer, or "wet" months, can be disagreeable at times. Although the climate varies from year to year, daytime temperatures can climb to well over 100°. The early rains of summer are accompanied by high winds which send clouds of dust billowing across the city. Since homes and offices are air-conditioned, problems of dust and mildew are not serious.

Annual rainfall is about 40 inches in the south, decreasing to less than 10 inches in the extreme north and northeast, where a hot desert wind accentuates the aridity of the region.

Mosquitoes, flies, and a great variety of other insects are present in varying degrees, depending on the season. Snakes are rarely seen near the city and not too often in the "bush."

There are no natural hazards such as earthquakes, or floods, but occasional droughts cause great hardship among the herdsmen and farmers, particularly in the northeastern part of the country.

Temperature and humidity changes make colds, coughs, and sore throats a common but not serious problem.

POPULATION

Upper Volta's population of over 5 million contains 50 distinct tribal groups. The powerful Mossi (about 2½ million members) dominate the country's political and economic life. They are descendents of warriors who carved out a 1000-year-long Empire in the area. During that time they established a rigid, disciplined society that has contributed much to Upper Volta's current political stability. The Emperor of the Mossi, the Moro Naba, still holds court in Ouagadougou.

Other important tribes or tribal groups include the Gourounsi, the Bobos, the Lobi, and the Peuls -- none of them numbering over 300,000. A few thousand Touaregs inhabit the northern regions.

Most of the people live in the south and center of the country where densities in urban areas sometimes exceed 125 persons per square mile. As a result of this population pressure, rare in Africa, thousands of Upper Voltans migrate annually to Ivory Coast and Ghana for seasonal agricultural work and for longer term employment.

Few Upper Voltans are of non-African descent. Europeans probably number under 4000, less than one-tenth of 1% of the population.

French is the official government language, the language of school instruction, and the language in which commerce, aside from native barter, is conducted. Each tribe has

its own principal language and may have several dialects. It is not unusual to find people in the "bush" areas who speak only their tribal language. But the language of the Mossi people, More, has become almost a lingua franca in many parts of the country.

Most people -- perhaps three-fourths -- remain strongly attached to fetishism and animism. The next largest group are converts to Islam -- about 20%. About 5% are Christians -- most are Roman Catholics, with a small number of Protestants.

Since many of the Upper Voltan elite have been educated in Catholic-run schools, Catholicism exercises a significant influence on Upper Voltan life.

Literacy and per capita income are among the lowest in Africa, and subsistence agriculture is the standard means of livelihood.

Traditional society in Upper Volta is family centered. The basic unit is the extended family, comprising not only a man, his wife, and children, but also adult sons and their immediate families. The senior living male is usually recognized as the family head, and he determines matters of descent and inheritance, controls the use of resources, and settles family disputes. The status of an Upper Voltan woman is inferior to that of a man in many respects.

Modernization is limited to the larger cities. Most Upper Voltans are too concerned with the struggle for existence to become involved in issues that do not affect them directly. The new elite, many trained in the French-established educational system, live in Western-style houses, wear Western and Voltan dress, eat and drink the foods of Europe and Africa, and follow cultural standards of both Africa and Europe (especially France).

PUBLIC INSTITUTIONS

Political Background. Upper Volta was under French control from 1896 until March 1959, when it became an autonomous state of the French Community under a government headed by Maurice Yameogo. Upper Volta became fully independent under Yameogo's leadership on August 5, 1960, and allowed its community ties to lapse but remained within the French political and economic orbit. It maintained its close associations with the Ivory Coast, Niger, and Dahomey -- other members of the so-called "Council of the Entente."

Yameogo established a one-party regime, but failed to retain the support of students, labor unions, the civil service, or the peasants. Although the party managed to reelect him by an overwhelming majority on October 3, 1965, he was compelled to resign 2 months later in the face of widespread discontent and popular protests against his wasteful and repressive regime. Lt. Col. (now Brig. Gen.) Sangoule Lamizana, Army Chief of Staff, assumed the functions of chief of state, suspended the constitution, and instituted a military government. An unsuccessful experiment with renewed political party activity in the summer of 1966 ended on December 12, 1966, with the announcement that military rule would continue until December 1970.

Ex-President Yameogo was convicted of embezzlement by a special court in May 1969 and sentenced to a heavy fine and 5 years' hard labor; the sentence was reduced to 2 years on August 5, 1969.

Constitution and Government. Upper Volta's constitution was suspended by the military government and no constitution is now in effect. A new constitution is being considered for eventual adoption. The present regime's power rests with the military, and statements of government policy have occasionally been issued in the name of a body called the Supreme Council of the Armed Forces. Executive authority is exercised by General Lamizana, acting as President of the Republic and President of the Council of Ministers, with the aid of a cabinet of military and civilian members. A Consultative Committee with something of a representative character was set up early in 1966 to advise the government.

Foreign Relations. A member of the UN, the OAU, OCAM, and various West African regional organizations, Upper Volta held to a pro-French and pro-Western position throughout Yameogo's presidency. The present military government has maintained this general orientation but has also established diplomatic relations with the USSR, Poland, Yugoslavia, Romania, Czechoslovakia, Hungary, and Bulgaria. The Soviet Union has an embassy in Ouagadougou. Economic assistance considerations play an important role in Upper Volta's foreign relations.

Current Issues. Economic and cultural modernization and development of a genuine national consciousness are Upper Volta's greatest needs. Its chief immediate problem is to find a political framework within which such a process can go forward. The present military regime indicated in August 1969 that it planned to adhere to its self-imposed deadline of late 1970 and would permit a gradual resumption of political activity from late 1969 onward.

Political Parties. Political parties have not been formally outlawed by the military government, but play a restricted role at present as a result of the ban on political activities imposed in January 1966, reimposed in September 1966, and finally lifted on November 20, 1969. Electoral campaign activity is scheduled to begin again no earlier than the last quarter of 1970. The dominant party of the pre-1966 period was ex-President Yameogo's Voltaic Democratic Union (Union Democratique Voltaique -- UDV), a portion of which switched along with Yameogo in 1957 to the African Democratic Rally (Rassemblement Democratique Africain -- RDA) founded by President Felix Houphouet-Boigny of the Ivory Coast. Most of the country's other parties disintegrated once the RDA-UDV had established its ascendancy in the early 1960's, although some activity was maintained by the National Liberation Movement (Mouvement de Liberation Nationale -- MLN), the African Regrouping Party (Parti du Regroupement Africain -- PRA), the Popular Action Group (Groupement d'Action Populair -- GAP), and PAI (Parti Africain d'Independence). The Voltan Government recognizes all of these parties as official except the PAI.

Parliament. The National Assembly, a unicameral body of 50 members elected November 7, 1965, and consisting of members of the ruling UDV, was dissolved on January 5, 1966.

Cabinet. The Council of Ministers, originally appointed January 4, 1966, and reorganized April 6, 1967, includes seven military and five civilian members in addition to Gen. Sangoule Lamizana.

ARTS, SCIENCE, AND EDUCATION

The artistic activities of the Voltan people are centered on their music, dancing, wood sculpture, and, to a lesser degree, painting. The small National Museum in Ouagadougou displays indigenous artistic works as well as representative items from the daily life of the country's various ethnic groups. There are occasional art shows by local artists, but these consist of nontraditional artistic expressions such as Western-style painting, sculpture, and print-making. A selection of carved wooden masks and figures is available for purchase by collectors; but good pieces are rare and expensive.

At the Catholic cathedral in Ouagadougou, the mass has been translated into More, the language of the Mossi people, and is sung using native rhythms.

The world of science is a small one in Upper Volta. Since there is no university science faculty or industrial complex, few research or related activities exist. Upper Volta does have specialized research centers.

Several agricultural research and extension services are variously sponsored by the French Government, semiprivate organizations, and the Upper Voltan Government. The Medical Entomology Center and the Muraz Medical Center perform research on tropical diseases in Bobo-Dioulasso, Upper Volta's second largest city. The Voltan Center for Scientific Research coordinates the social science studies of Voltan as well as expatriate researchers.

Upper Volta has the beginnings of a university. The Centre d'Enseignement Superieur provides 2 years of university study (humanities only) after which students go on to Abidjan, Dakar, or France for advanced education. About 200 students were enrolled at the Centre in 1969-70. A few French students attend but no American students at present. About 240 Voltan students study abroad each year, but only occasionally in the US.

About 40 secondary schools in the country provide education for some 8500 students. A few of these schools are run by the Catholic church. Many teaching positions are filled by expatriate instructors.

Government enrollment figures indicate that 92,000 students are studying at the elementary level. About 10% of the children of primary school age have the opportunity to attend school. From 10% to 12% of the national budget is spent on education.

COMMERCE AND INDUSTRY

Upper Volta is predominantly an agricultural country, with roughly 95% of its people earning their livelihood from farming and livestock production. More than half the country's exports consists of live animals -- cattle, sheep, and goats -- which are driven on the hoof to neighboring coastal countries and sold.

Chief crops are millet, sorghum, peanuts, and karite (shea nuts). Cash crops include peanuts, karite, cotton, and rice. The government attaches high priority to improving the agricultural sector and is working to establish more cash crops, stabilize grain supplies and prices, provide adequate supplies of water, etc.

At present, Upper Volta's mineral resources are not being exploited commercially, but manganese mining operations around Tambao in the remote northeastern region may begin in the next few years. A study financed by the UN Development Program has revealed extensive deposits of high grade manganese ore and commercially exploitable limestone in the Tambao area. The stumbling block is

transporting the minerals out of the area. This may be solved eventually by extending the railroad from Ouagadougou to Tambao.

Because it is landlocked, and because of the limited buying power of the Voltan consumer, Upper Volta is one of Africa's least industrialized nations. But in the past several years, it has made gains in textiles and food processing. A large textile factory has begun production at Koudougou, and cooking oils, beer, cigarettes, and soap are also manufactured. Bicycles, too, are assembled in Upper Volta. Production of shoes, sugar, paint, and flour should begin within the next couple of years, and other industries are not much further off.

The country has had an unfavorable trade balance since independence, but in 1968, for the first time, exports amounted to more than half the value of imports. Manufactured goods such as electrical equipment, machinery, and vehicles are imported, as are sizable quantities of cotton cloth and foodstuffs. Upper Volta's chief export customer is Ivory Coast (48.3% in 1967), followed by France and Ghana (each 13.5%). Most imports are from France (44.9% in 1967), with Ivory Coast (20.9%) second. Upper Volta's exports to the US are negligible, but in addition to commercially exported machinery and used clothing, the country has received US surplus food, road maintenance equipment, and medical supplies through A.I.D.

Upper Volta is a member of the franc zone and is an associated state of the European Economic Community. Her traditional dependence on France and Europe is slowly being modified by participation in regional economic organizations. Together with Ivory Coast, Niger, Dahomey, and Togo, Upper Volta belongs to the Entente Council, which administers a guarantee fund for development project loans benefiting the member states. Steps have been taken toward wider regional groupings as well.

France and the Common Market are chief sources of foreign assistance, although significant contributions have been made by the US, the Republic of China, West Germany, and Israel. International organizations have also assisted, and the UN Development Program has an office in Ouagadougou.

The Upper Voltan Government has a 4-year economic plan (Plan-Cadre, 1967-1970) emphasizing rural and urban development. The government's efforts are limited by a small financial base and must depend on capital from outside sources to finance economic growth. The present military government has adopted a policy of fiscal austerity, and it succeeded in producing small budget surpluses for 1967 and 1968, contributing to an atmosphere of renewed confidence in the economic potential of the country. The government welcomes private investment and protects ownership of private property.

Most Voltan salaried workers are organized into trade unions that are influential in the nation's political life. Labor-management relations have generally been good, in spite of the financial sacrifices imposed on wage earners as their part of the austerity program. Most wage earners are employed by the government.

TRANSPORTATION

Roads are generally adequate during the dry season, but the rains (June to September) make many impassable, and repairs often take several months. Paved roads are found only in the main towns and a stretch running from Bobo-Dioulasso to the Malian border.

The number of taxis permitted to circulate in Ouagadougou is limited. While it is not always easy to "hail a cab," they are usually available in the downtown area. Fares are based on distance. A trip within the city may cost from 20¢ to 80¢, with higher rates at night. There is no tipping.

Trains run twice daily between Ouagadougou and Bobo-Dioulasso and on to Abidjan 733 miles away on the coast once a day. The entire trip takes 27 hours, sometimes longer. Some of the more adventurous members of the Embassy have considered it one of the highlights of their tour. Accommodations are acceptable, particularly in first-class, where small compartments are made up for sleeping at night. Food is sold on the train, but since prices are high, Americans usually carry a picnic hamper and Thermos.

COMMUNICATIONS

Telephone and Telegraph

The local telephone dial system works fairly well but service is often interrupted, especially during the rainy season. Long-distance calls within the country and to certain other African countries can be hard to place at times. Radiotelephone calls to the US cost about $13.40 for 3 minutes.

Radio and TV

Ouagadougou and Bobo-Dioulasso both have radio stations. The Ouagadougou station broadcasts on weekdays 6 to 8 am, 12 to 2 pm, and 5 to 11 pm; Saturdays, 6 to 8 am and noon to 11 pm; Sundays, 7 am to 11 pm. Most broadcasts are in French with the remainder in various vernacular languages. There are normally several hours of Western-type popular and semiclassical music each day. Shortwave broadcasts such as the Voice of America can also be received here. Locally purchased radios are expensive. Bring your radios to post; they should be battery powered or designed for 220v current.

As an economy measure, TV was prohibited in Upper Volta for 3 years, but was reintroduced in January 1969. The one station is in Ouagadougou and broadcasts about 2 hours each Wednesday and Saturday evening beginning at 7:00. Programing is in French and features youth programs, educational films, news broadcasts, and movies.

Newspapers, Magazines, and Technical Journals

Few English-language books, magazines, or newspapers are sold in Ouagadougou.

The only newspaper published in Upper Volta is the weekly French-language Carrefour Africain. Both Carrefour Africain and a daily news leaflet, Bulletin Quotidien (also in French), are published by the government and draw on Agence France Press, UPI, Reuters, and TASS for most of their international news. An unofficial daily newssheet, La Nouvelle, has been published in Ouagadougou since late 1969, and there is a weekly newssheet, L'Aurore Bobolaise, published in Bobo-Dioulasso.

HEALTH AND MEDICINE

Medical Facilities

A 600-bed hospital in the city is staffed by French and Voltan doctors. Minor problems can be taken care of here on an outpatient basis, including laboratory work, X-rays, minor dental care, minor surgery, and simple orthopedics.

Major dental work can be done in Abidjan, Ivory Coast.

Ouagadougou

Ouagadougou (pronounced WAH-GAH-DOO-GOO) is in central Upper Volta about 500 miles north of the Ghanaian coastline. The city's population is approximately 100,000; 2000-3000 are European, mostly French. The city has tree-lined streets and much European and "African colonial" architecture.

Three hotels are normally used by American visitors. The best is the Hotel Independance which is air-conditioned and has an Olympic-size swimming pool and European management. The Buffet and the Central are small hotels, containing no more than a dozen rooms and not all are air-conditioned. Americans usually stay at the Hotel Independance.

FOOD

Meat, Poultry, Eggs. Most kinds of meat are available here, either imported or of local origin. Local meats (beef, lamb, mutton, pork) are generally of good quality and reasonably priced. Besides several butcher shops, a section of the public market is devoted to the sale of meat. French butchers here also make their own fresh sausages and fair patés. But some items, such as bacon, ham, seafood, and veal, are imported and expensive.

Poultry sold at the markets is tough, stringy, and gamy. French poultry is readily available but expensive. Two large poultry farms have been established, one French and one Voltan.

Local chicken and guinea hen eggs are of good quality and cost about $1.08 a dozen. Some spoilage occurs since the eggs are seldom refrigerated. It is wise to buy only from known sources. Guinea hen eggs have a higher spoilage rate.

Fresh Fruits and Vegetables. Seasonal local vegetables are good and include potatoes, green beans, lettuce, green peppers, carrots, eggplant, peas, and turnips. Lettuce, cauliflower, beets, and other vegetables are flown in from France and North Africa. Local fruits include oranges, limes, avocados, papayas, guavas, pineapples, bananas, grapefruits, mangoes, purple grapes, melons, and strawberries. Imported fruits include apples, peaches, plums, cherries, etc. Imported items are expensive and are sometimes bruised in transit.

Dairy Products. Fresh milk is not produced locally, but local powdered whole milk is sold. French bottled milk, pasteurized and sealed, (similar to US canned whole milk) is available. One brand has a particularly good flavor, especially when chilled.

Imported butter is available, as are margarine, yoghurt, fresh cream, and a good selection of the excellent French cheeses. All these items are expensive, though local yoghurt is inexpensive and usually very good.

Bakery Products. Two good French bakeries provide a variety of fancy pastries, made-to-order cakes, and ice cream (extremely expensive), as well as French bread, long and round loaves, rolls (on order), and candy. Dark (whole wheat and rye) bread is also made.

Tinned and Packaged Foods. A fairly good selection of French tinned foods is sold in Ouagadougou stores (expensive); some prepared foods, such as Ravioli, Cassoulet, sausage, and sauerkraut, are in good supply. Fruits are more limited in variety. Tinned juices (orange, grapefruit, and pineapple) are

available and also a good selection of jams, jellies, and honey, but no syrups are available locally.

French baby foods are available in fair supply and variety (expensive).

Whole coffee, instant coffee, and cocoa are sold. There are few tinned meats, corned beef, strasbourg sausages, but usually ample supplies of tuna fish, sardines, mackerel, herring, and anchovies. Also olives, pickles, vinegar, mayonnaise, peanut and olive oil, certain prepared sauces such as bearnaise, and tomato paste are stocked by the stores handling European food products. Items such as catsup, Worcestershire and tabasco sauce cost about $1 a bottle. A few dried vegetables are available and you can find dried raisins, apricots, figs, and coconut at times. Most forms of pasta are stocked, as are dried soups, pudding, and ice cream mixes. Good white sugar is available, though often only in cubes; brown sugar is not sold. Dry cereals are seldom available. Chocolates, chocolate bars, and hard candies are stocked, but chocolate products are expensive.

Flour is of poor quality, requiring almost half again as much per recipe as the better US all-purpose flours. Fresh yeast can be purchased from the bakery, but no dried yeast, and the French baking powder, when available, does not compare to US double-acting varieties.

The picturesque public market has a large variety of herbs and spices so finely powdered that much taste and aroma have been lost. From France comes dried thyme, bay leaf, sage, chervil, and savory, in bulk, and powdered seasonings such as caraway. Fresh parsley is almost always available.

CLOTHING

Women should have a large supply of dresses, including many inexpensive cottons. (Wearing miniskirts has been outlawed by a Voltan Government decree. Women over the age of 12 years may not appear in public wearing dresses shorter than the tops of their knees.) Men should bring six wash-and-wear suits (one or two in dark colors for evening and ceremonial wear).

Since Ouagadougou has no dry-cleaning, bring mainly wash-and-wear clothing; items suitable for a Washington summer are fine. The sun is hot during the day, and dark colors are usually worn only at night.

Hats are rarely worn. Women might bring one for the occasional afternoon tea, for a wedding, a funeral, or church service. Attractive storm hats and colorful Voltan sun hats can be purchased here.

There are occasional "black-tie" affairs (both white and dark tuxedoes are popular), need "white-tie." Tropical weights are recommended. For women, elegant, washable, cocktail-length dresses (possibly in some silk-like synthetic) are suitable. Floor-length evening gowns are required for the rare Presidential affair.

Dress for most African women, including the elite, consists of a sarong-like skirt, a blouse, and a transparent "booboo" -- usually a beautiful flowing, full-length gown.

Men dress in a variety of costumes, including a full-flowing gown (usually white) worn over baggy pants and a matching blouse-shirt. Most material is imported from Europe or the Ivory Coast, but one type of cloth is woven here in strips, usually white and indigo, with colored designs. Originally made to wear, the cloth has become popular for wall hangings, bed covers, curtains, etc., and can be purchased throughout Upper Volta.

RELIGIOUS ACTIVITIES

There are five Roman Catholic churches in Ouagadougou, and Mass is said in French and More. The one Protestant church is Assembly of God; services are held in French and More, and on occasion in English, if requested.

There is also a French missionary-sponsored Baptist church. Many Catholic churches and missions are found throughout the country, as are a few Protestant congregations. African clergy, Roman Catholic and Protestant, are in charge of these churches. Upper Volta is proud of the fact that one of its sons was named a Cardinal in 1965, the second black African to be so honored and the first in the French-speaking parts of Africa. The Cardinal resides at Ouagadougou.

Touring

One of the most interesting places to visit in Upper Volta is the game reserve at Arly, which connects with the Niger "W" reserve. Within these thousands of acres can be seen a great variety of wild animals, including several types of antelope, baboon, wild boar, water buffalo, and hippopotamus in two of the lakes. Antelope, wild boar, lion, elephant, and buffalo can be hunted at times in the non-prohibited areas.

The game reserves contain campements -- round, thatched-roofed huts with modern bathrooms and electricity. Good food and cold drinks are served in a central dining room. Campements are linked with each other and with Ouagadougou by radiotelephone. The reserve and hunting areas are 6 to 8 hours by car from the capital and reservations must usually be made in advance.

Other points of interest lie in the south and include Bobo-Dioulasso, where Americans and others enjoy an occasional weekend. It is notable for its light industry, its variety of gardens, fruit trees on the street, and its safe "swimming hole" -- a small clean stream near the city. The city was once the commercial center of the country and the main garrison for French forces.

The relatively rich Banfora region has interesting scenery, two splendid waterfalls, and fascinating native dancers. It is an important agricultural center. Between Banfora and Gaoua to the east is an interesting ruin resembling a medieval city. The walls, some two stories high, are estimated to be 4 centuries old, yet no one knows who built the city.

Those who fly over the area say there are other lesser ruins within a 40-mile arc.

A 2-hour drive north of Ouagadougou is Ouahigouya, one of the kingdoms of the former Mossi empire. It was the base from which the Mossi warriors of Yatenga defeated the Mandingo Emperor's troops and sacked Timbuktu in 1333.

Entertainment

Two open-air cinemas offer a limited variety of recent, good films and a multitude of "blood and thunder" B pictures, all in French. Many have French dubbed in. Tickets cost 75¢ to $1.25 and can be hard to get for popular films. Besides the cinemas, the Franco-Voltan Cultural Center offers films and other cultural presentations.

An occasional cultural presentation from one of the countries represented in Upper Volta provides cultural activity, such as a German symphony orchestra, a US jazz band, a French theater play, or a Soviet vaudeville troupe.

Religious and tribal ceremonies, folk dancing (which varies widely from district to district), the tam-tams, and other national cultural activities can provide a new and interesting substitute for concerts, plays, and the opera. The ceremonies at the palace of the Moro Naba, Emperor of the Mossi, are extremely interesting.

An annual series of fairs held around the country provide fascinating opportunities to see the dances, handicrafts, agricultural produce, livestock, and commercial and industrial activity away from the capital.

Two parades are held each year with workers, military units, school children, athletes, and others marching; a colorful fireworks display follows each parade.

There are many Moslems in Upper Volta and some of their religious festivals are well worth attending. Photographs may be taken, at least in the larger centers,

You will find willing subjects for photography among almost all the men. But many women object to being photographed and will cover their faces and hide their children. In some bush villages such attempts to take photographs can lead to incidents.

OFFICIAL FUNCTIONS

Nature of Functions

Official functions range from rare "white tie and tails" affairs at the President's Palace (at which all but the President and chiefs of mission wear "black tie" or native dress) to the less formal sit-down dinners and semi-formal buffets or receptions and cocktails.

Official functions are mainly "sit-down" dinners or informal cocktails and buffet receptions held outdoors at which "mechoui" (roast sheep or goat) or a supper is served.

Depending on the formality of the affairs, dress is either dark suit and short dinner dress or sports wear (sport shirts and short, gay, but less dressy, dinner dresses).

Entertaining picks up during the cool, dry season (mid-November through mid-February) and drops off with the hot, rainy season. As mentioned above, the preference is for outdoor, garden-type entertaining which is generally more comfortable than indoor functions.

5.B - POLITICAL SITUATION

Two regimes since independence

From 1960 to 1966, the country was ruled by a civilian Government headed by Mr. Maurice Yaméogo, which made a profligate use of public funds. In 1965, the financial situation had deteriorated to such an extent that austerity measures became necessary, but Mr. Yaméogo personally continued to spend lavishly, particularly on an extravagant honeymoon trip to Brazil. In January 1966, riots caused the downfall of the Government and power fell into the hands of the military, who had not sought it. The Chief of Staff, Lt. Colonel Sangoulé Lamizana, became President, although he did not move into the Presidential Palace. The now General Lamizana has given the country a period of political stability during which slow but steady progress has been achieved although austerity may have been excessive, depriving certain basic government services of operating funds. After three years in 1969, the Government initiated a gradual return to a civilian regime. Political parties were authorized again in November 1969. A new constitution was prepared and submitted in March 1970 to a Consultative Constitutional Committee.

Current regime and policies

The new Constitution, democratic in form and guaranteeing basic human rights, was approved June 14, 1970. Elections were held on December 20, 1970 and the military regime thus paved the way for the transition to a civilian government. However, the military still lacked confidence in the political parties, with their quarrels and corruptibility. The new constitution, therefore, provides that for a period of four years, the highest ranking military officer will assume the duties and powers of the Presidency, and that a third of the members of the Government will be military officers. The military hold the main ministries (particularly Finance and Agriculture). The Prime Minister and the other Ministers are civilians and belong to the majority party, the UDV-RDA. The new Government has continued the same financial policy. However, politicians are increasingly chafing under the control of the military and resenting the prolonged austerity. The Parliament recently sharply challenged the budget presented by the Finance Minister, which they considered too austere. A compromise was found, but conflict is clearly brewing.

External relations

Like most other African francophone countries, Upper Volta continues to preserve its special relationship with France and the EEC while at the same time seeking to make new friends. In relations with neighboring countries, however, some divisive issues have arisen, such as the recent eviction of Voltaic students from Abidjan University. Upper Volta is also resisting efforts by the Government of Niger to improve navigation on the Niger River, since it would prefer to have a railway built on its own soil, from Tambao to Ouagadougou. At the same time, it seems that Upper Volta has overcome its resentment towards Ghana, its English-speaking neighbor, for having brutally evicted Voltaics (like many other Africans) from its soil not so long ago.

Attached is a newspaper article about the political situation in Upper Volta as of last fall.

5.12
A

Towards Democracy in Upper Volta

THE SOLDIERS AND THE BUDGET

Ouagadougou

The reputation of the military in Upper Volta depends more than anything on their dedicated efforts to introduce some kind of financial order. In no circumstances can Upper Volta's financial situation be described as rosy: it is one of the poorest countries in the world with minimal natural resources, which balanced against one of the highest population densities in West Africa gives the country one of the lowest Gross National Products in the world.

The Minister of Finance describes the situation left by the previous regime

In a situation like this the financial mismanagement and wastefulness of the first five years after independence, was all the more disastrous, and as military Minister of Finance, Intendant Marc Tiemoko Garango said to me, "the country had arrived at the extreme limit. It was no longer possible to pay the civil service or run the administration," and it was the measures taken to try and recover the situation which caused the fall of the Yameogo government.

"Public finance was run in a disorderly fashion, without method" says the minister, and the budget was in increasing deficit. In 1963 and 1964 there had been deficits of more than 1,000 m. CFA (about £1.5 m.) and in 1965 one of 500 m. CFA (about £750,000). At the moment of the army coming to power the accumulated deficit was more than 3,500 m. CFA, to which had to be added unpaid bills, both inside and outside Upper Volta amounting to about 1,300 m. CFA, giving a real deficit totalling getting on for 5,000 m. This deficit had been financed by drawing on all the means available for treasury use, including all the reserves of savings banks and the P and T, and by the end of 1965 it was the end of the line.

Belated and ill-conducted austerity attempt by previous regime

The reason Yameogo's attempt to impose austerity did not succeed, indeed, led to his undoing was that it was introduced without psychology. Austerity was introduced for all government workers, but the government made no attempt to discipline itself (it will be remembered that shortly before President Yameogo had remarried and been on a honeymoon in Brazil, and was also building himself a mansion in his home town of Koudougou). The grievance at this "austerity for you, but not for me" was perhaps the mainspring of the revolution of January 3, 1966.

Austerity under the military regime

When the military came to power, Garango underlines, their first priority was to revise Yameogo's budget. Garango himself has been Minister of Finance since that time and so the whole of the financial "style" of the military rule has been fashioned by him. Although the 20 percent decked from civil servants salaries was lifted as an interim measure, while the government was completing an inventory of their resources, "sacrifices were demanded of everybody", particularly those who were in a position to set an example. Although it may not have meant much saving, ministers received no salary other than that of the job they were doing before. From President Lamizana down, the military in the government only draw military salaries, and likewise for the civilians. Free lodging, water and electricity for any officials were abolished. Other cuts were made, such as stopping the wasteful television service which Yameogo had started, which only benefited a privileged few of the elite in Ouagadougou. It has since restarted, two nights a week, simply to keep the expensive equipment in working order, but there is no symbol more vivid of the change in 1966 than to visit a house here and see the unused TV set like a great dead useless eye in the corner of the room.

In 1967, reinforced by the knowledge that they were going to be in power for four years the military came back with an even more sweeping budget than the Yameogo one of a year before, as despite the economies, the year had still ended with a deficit of 159 m. CFA (about £250,000). Many other allowances and privileges were cut (family allowances were cut by half) and charges were made which had the effect of reducing salaries themselves by 25 percent. Not surprisingly this brought a certain amount of squeals from the trade unions, who jokingly likened the austerity that was sweeping the land to a disease, la garangose (after the Finance Minister). There was little they could do, however, as it was the unions who had demanded the army should come to power.

Financial results

The army was, in any case, so straightforward in what they were doing, that it was difficult to complain, especially as they began to produce results which looked good on paper, and started winning praise from outside, from the French, from the World Bank, and other authorities. At the end of 1967 the budget proved to have been in surplus for the first time since independence to the tune of 231 m. CFA francs, and in 1968, with largely the same conditions operational this was increased to 369 m. CFA. In 1969, in spite of an easing of the charges on salaries, and in spite of the devaluation of the franc, a surplus of 580 m. CFA was achieved, and this year a similarly balanced budget is expected. By 1969 all unpaid bills were paid.

Finance Minister Garango's personal role

While overall credit for this goes to the military corporately, Garango is rightly seen as the architect of this recovery. His critics say he is too unimaginatively orthodox, that he has run the country as though it were an army camp. Also, that the principles which he assimilated when collecting what is for a soldier a remarkable academic record (apart from having a law degree from the Ecole des Officiers at Saint Maixent he studied financial administration at the Ecole Supérieure de l'Intendance in Paris) are not enough for running an economy. This, however, is to underestimate Garango, and the way he has worked with the other members of the government, particularly the(then) Planning Minister, Pierre Claver Damiba, who has been responsible for seeing through the 1966-70 economic plan (68 percent of which was implemented), and is currently working on one to begin in 1972.

Garango's budgets have themselves also taken into account the need to stimulate economic activity, which had become totally stagnant by 1965. The harsh budget of 1967, for instance, while cutting purchasing power, also cut indirect taxation, customs and excise, etc. in a number of fields, in an attempt to get money moving. At the same time there was a concerted effort to increase agricultural production with the help of foreign aid, which has also paid dividends. The large surplus of 1969 is one result of these efforts.

Garango, who may very well stay on when the new semi-civilian regime is installed at the beginning of next year, says the important thing is that public finance is now stabilised and carried out in an orderly way. There is still a sizeable trade and balance of payments deficit, but at least the budget now produces small surpluses, and the debts are paid. There is some apprehension that return of the civilians (those in the government at the moment are, in theory, more technicians than politicians) will lead to a rise in government expenditure in spite of the watchdog presence of the army. Garango warns that public finance "will still need to be administered with much prudence. You cannot have fantasies or disordered administration". But it will be interesting to see how much of a Garango-style squeeze the austere soldiers will be prepared to exercise over the incoming politicians.

LIST OF GOVERNMENT PERSONALITIES

UPPER VOLTA

Sangoulé LAMIZANA, President of the Republic

Gérard Kango OUEDRAOGO, Prime Minister

Tiémoko Marc GARANGO, Minister of Finance (Governor IBRD)

Joseph Issoufou CONOMBO, Minister of External Affairs

Edouard YAMEOGO, Minister of Planning, Industry and Mining

Charles TAMINI, Minister of Education

Youl TIGARET, Minister of Posts and Telecommunications

François LOMPO, Minister of Public Works

Antoine DAKOURE, Minister of Agriculture and Tourism

Aly BARRAUD, Minister of Public Health and Population

Bila Jean ZAGRE, Minister of Information

Félix TIENTARABOUM, Minister of Youth and Sports

Gabriel Some YERYAN, Minister of Interior and Security

Malick ZOROME, Minister of Justice

Daouda TRAORE, Minister of National Defense

Diongolo TRAORE, Minister of Social Affairs

Victor OUEDRAOGO, Minister of Public Function and Work

5.C - THE ECONOMY: FACTS AND QUESTIONS

A bird's eye view of Upper Volta's economic problems was presented in the Summary and Conclusions of our economic report dated November 27, 1970. Here is that text:

A poorly endowed country

"Upper Volta suffers from a number of serious development constraints -- a geographic position far from overseas markets and sources of supply, a general poverty of natural resources, over-population over much of its area, inadequate development of skills, and a rather high incidence of debilitating diseases. While land and water are the principal resources, they are in many respects seriously deficient. Some mineral resources are available, but the economic exploitation of the most promising of these -- manganese -- is for the time being impeded by the high cost of transport and the low current prices of this mineral on the world market.

Limited progress under present regime

"Despite these constraints some progress has been made, particularly since the advent to power, early in 1966, of the present military government. Public finances, which had been allowed to deteriorate seriously, have been put back on a sound basis and considerable budget savings have been realized, although partly at the expense of essential operating and maintenance expenditures. Exports have generally expanded more rapidly than imports, and the resulting reduction of the trade deficit, together with receipts of considerable foreign aid, have made possible a substantial increase in foreign exchange assets. Expenditures on development, although lagging markedly behind targets, have been accelerating recently. Regional Development Offices (ORDs) largely directed by foreign firms, have been established to provide extension services, marketing facilities and credit to improve agricultural output, and a notable increase in cotton production has taken place. In industry, which is not of great importance to the economy, a number of new ventures have been launched. Some improvements in the main arteries of communication have been effected. A special program for the establishment of rural education centers, still seriously deficient in many respects, has been carried out.

The basic requirements of development

"However, Upper Volta, with a per capita GDP of only around $50, remains extremely poor and is beset by many problems which are extremely difficult to resolve. Progress is bound to be very slow. In the future orientation and scope of development every effort will have to be made to remedy some of the critical deficiencies revealed by past experience. A considerable number of pre-investment studies and surveys should be completed and newly undertaken for the purpose of providing basic information -- e.g. on population, migration and rural production -- essential to sounder planning, and of formulating concrete development projects. The organization or staffing for execution of projects must be greatly improved. In further planning more attention should be centered on the population problem. Labor migration to the Ivory Coast and Ghana is unlikely to provide in the future the same relief for excess population and deficient incomes as in the past. It has accordingly become more urgent to intensify efforts to raise production at home and to promote internal migration with a view to bringing about a better distribution of population in relation to land

resources. In this connection it will be particularly important to develop plans for the settlement of river valleys, notably that of the White Volta River, which are now largely unoccupied owing to the prevalence of onchocerciasis but which would be opened up if projected programs for the eradication of the vector of this disease are realized.

Priority to rural development

"The rural areas which support the vast majority of the people will have to remain the primary focus of development efforts. The scope and orientation of the Regional Development Offices will have to be gradually changed. Continued emphasis on the production of such cash crops as cotton will undoubtedly be necessary; and the cotton project proposed for IDA financing will make an important contribution to this end. However, more attention should be paid to other crops, including food grains and fodder crops, and a beginning must be made with the integration of livestock into farming for the dual purpose of providing more and better draft animals and fattening animals for slaughter. The ORDs should become increasingly the vehicles for the realization of more comprehensive, integrated rural development programs extending to all aspects of rural life. Means should be found to finance within the ORDs numerous small projects in which the rural population itself can be intimately involved and which are now neglected owing to their number and small size despite their substantial potential contribution to development.

Importance of livestock development

"Far more attention should be devoted to the livestock sector which has been greatly neglected in the past and shows many signs of serious deterioration. A special livestock ORD for the grazing and breeding areas of the North should be established. A comprehensive campaign to combat the widely prevalent livestock diseases and parasites, coupled with efforts to improve livestock management, should be seriously considered. The development of livestock routes to reduce marketing losses and ensure the arrival in good condition of livestock at points of slaughter and export should be accelerated. Bush slaughter and the preparation of hides and skins need to be improved. The possibilities of intensive fattening of cattle on feed-lots must be carefully studied. Fortunately many of the studies essential for a more effective livestock program have been completed or are under way and projected.

The development of human resources

"Education and training must also be improved. Upper Volta undoubtedly cannot afford a rapid expansion of its system of formal education despite the existing low level of school enrollment. The major emphasis will have to be on practical training. Upper Volta has been carrying out an interesting program to provide such training, combined with some academic education, at rural education centers designed for boys and girls in the 14-17 year age groups. While the results have been very disappointing in practice, the conception is sound in principle. Instead of abandoning this program, measures should be taken to improve the quality of the teaching, the curriculum and the equipment of these centers so that young people leaving them are really better equipped to take up rural occupations.

The current situation and prospects are set out in the Summary and Conclusions of our updating economic report dated December 20, 1971:

Bad weather in 1971

"The overwhelmingly agriculture-oriented economy remained extremely vulnerable to weather conditions. Certain achievements in agricultural production, exports, GDP, etc. realized during the last 2-3 years suffered a considerable setback in 1971 due to a severe drought during the crop season 1970-71. The full impact of this downturn cannot yet be precisely determined. It is also not possible to assess a certain recovery likely to take place in 1972 owing to somewhat higher precipitation during the crop year 1971-72.

Growth of GDP

"On the basis of available provisional data, tentative estimates suggest real growth of per capita GDP of about 2 percent per year during 1969 and 1970. In the longer-run (1964-70), hardly any growth of GDP per capita in real terms took place despite an estimated 4 percent per annum GDP growth in current prices between 1964 and 1968. This was caused by a rise in population (about 2 percent per annum) and some increase in consumer prices (approximately 2-3 percent per annum). Per capita GDP in 1970 was estimated at $59 1/ - one of the lowest in Africa and elsewhere. For 1971, a definite decline is anticipated. Since December, 1969 minimum wages established by the Government, salaries, and remunerations of officials remained unchanged. Producer prices for agricultural cash crops were partly lowered in 1969-70 but otherwise were kept unchanged since 1965.

Sectoral composition

"Investment and the resource gap both were about 8 percent of GDP in 1970 (11 percent in 1964) 2/; external sources financed virtually all domestic capital formation. Agriculture and livestock remained the mainstay of the economy accounting for 27 percent and 11 percent, respectively, of the 1970 GDP. Among cash crops, cotton production has been rising notably, yet in 1971 total output will be about one third lower than in the preceding year. Industrial production, which contributed less than 10 percent to GDP, developed rather favorably. In the longer-run, a certain shift in the composition of GDP is apparent, i.e. decreasing shares of primary and traditional sectors vs. growing proportions of secondary and modern sectors.

Aid received

"Aid disbursements, mostly extended on a grant basis, averaged CFAF 6.1 billion per annum (US $ 22 million) during 1964-69. For the 1967-69 period, the average concessionary element for aid commitments was about 95 percent. This reflects aid donors' conviction that Upper Volta requires the softest terms possible. France and FED, with shares of 56 percent and 23 percent, respectively, of total aid remained by far the major suppliers of external funds. Capital aid constituted only slightly more than half of total assistance. External public debt committed (US $31 million as of December 1970) and debt service payments have been rising in the past few years 1/. On the basis of export data for goods and service, as shown in the balance of payments, the 1970 debt service ratio amounted to about seven percent.

1/ The debt service ratio, based on recorded merchandise exports only, went up from 3.4 percent in 1965 to 12.2 percent in 1970.

Budgetary position

"Budgetary savings have increased since 1967 due to increased tax revenues, especially indirect taxation, and to only moderate growth in current expenditures. This improvement enabled the Government to repay outstanding arrears and to accumulate a sizeable treasury liquidity (CFAF 5.3 billion in June, 1971 or about 50 percent of the 1970 government budget. While generation of budgetary surpluses clearly constituted a favorable feature of the Government's austerity policy, simultaneous lack of operational funds for high priority development efforts represented a serious growth constraint for government agencies.

Actual investment and its sources

"The investment targets of the Development Plan 1967-70 (CFAF 33.6 billion: US $131 million) have been 60 percent realized with shortfalls notably in livestock, infrastructure (Tambao railway), and research and statistical studies. As compared with financial commitments, the actual project implementation ratio was 84 percent. Foreign sources supplied more than two-thirds of total investment expenditure. Domestic funds, still low in absolute terms, contributed almost twice the amount originally anticipated.

1972-76 Development Plan

"The new Development Plan 1972-76, which again constitutes a so-called "project plan", has not yet been completed. A preliminary version envisages total investment of CFAF 45 billion ($176 million) and a minimum per capita GDP growth of 3 percent per year. More attention is being given to the planning of recurrent cost and a closer cooperation between the Ministries of Finance and Planning. Past relations between the rate of growth and investments suggest that the planned investment level may be on the low side if the growth target is to be reached. Other projections foresee a real per capita GDP growth rate of about 0.5 percent per year. On the other hand, it is doubtful whether a substantial increase in investment, as contemplated in the new Plan, would be compatible with the country's absorptive capacity and with the availability of domestic and external resources. Completion of a detailed project plan is important for determining the composition and appropriate level of public investment.

Development prospects

"Development prospects are not bright because of the large number of structural socio-economic growth constraints and the recent slow growth which confirmed the stagnant nature of the Voltaic economy. Future development will be heavily dependent on exogenous factors such as weather conditions for primary production and on the inflow and effectiveness of foreign aid.

"Agriculture and livestock will remain the backbone of the economy for many years to come. Ongoing and/or planned projects in these and related sectors such as public health and manpower policy should help achieve reasonable production growth rates and a gradual structural improvement. Exploitation of manganese near Tambao is still under preliminary consideration. When realized, the major development effect would be the generation of additional fiscal revenues, estimated to be in the order of 6-14 percent of budget receipts. Plans for exploitation/marketing arrangements with foreign investor(s) and construction of a 350 km railway including improvement of the existing network have not been completed. Because of these factors and a construction period of three to four years, any substantial contributions cannot be expected for the forthcoming plan.

Importance of continued aid

"Foreign capital and technical aid will continue to play a decisive role in the development process and in determining the size of the absorptive capacity. There seems to be scope for better coordination of capital and technical assistance projects as well as closer cooperation among foreign donors. Likewise, government agencies, especially those of the Ministries of Finance and Planning, should cooperate more effectively. Particular attention should be given to the adequate allocation of necessary operational funds for urgent development programs and to the forward planning of recurrent cost.

Resource needs

"In 1970, the goods and services deficit was about US $40 million (CFAF 11 billion). About half of this amount was covered by private transfer payments (mainly wage remittances by Voltaic migrants and French pension payments). The remaining gap was filled by grants and official capital inflow, representing about 6 percent of GDP. Both external debt committed and debt service payments have increased in recent years. The debt service ratio now amounts to approximately 7 percent of recorded exports of goods and services. Economic growth prospects and the outlook for exports are at best moderate. Therefore, the resource gap to be financed with foreign aid is likely to remain the same or even to increase in the future. The present average level of external assistance, US $22 million (CFAF 6.1 billion) per year, may increase somewhat in coming years depending on the project composition of the forthcoming plan. It would be premature at this stage to assess whether future foreign aid will be sufficient to cover the probably widening resource gap likely to arise under the new Development Plan. In view of the prospective resource gap, the poverty of the country, its limited growth potentials and the present debt service level, external aid should continue to be extended on predominantly concessionary terms. Likewise, the public finance situation makes it necessary that external sources finance a substantial propostion of the local cost of investment projects and, in certain cases, part of recurrent cost (e.g. for high priority projects implying fairly substantial recurrent costs)."

Remarks: Upper Volta is one of the 25 countries listed in UNDP documents as "least developed", and it may very well be that the Government will ask what the Bank Group plans to do to implement United Nations resolution Nr. 2768 concerning "special measures in favor of the least developed among the developing countries". We consider the Rural Development Fund as a partial but good answer. ~~Attached for background purposes is a copy of the United Nations resolution mentioned above.~~

what is this

5.D - POPULATION

We would like to call your special attention to the population problem in Upper Volta, which is not so much a problem of excessive growth (due to disease the growth rate is, at two percent, rather lower than in adjacent countries), but one of bad distribution in relation to physical resources due to sanitary problems (onchocerciasis, guinea worm and other diseases) and tribal frictions. Here is how our economic report dated November 27, 1970 characterized the situation:

"The Population and its Characteristics: The population, which a sample census conducted in 1960/61 put at nearly 4.4 million, is now (1970) estimated at 5.1 million. The annual growth rate, approximating two percent, remains relatively modest, largely because the death rate is apparently still 30 per thousand. The average population density -- 19 per square kilometer or 49 per square mile -- does not appear to be high, but the maldistribution of the population in relation to land resources has created serious problems (see Part III, map "Density of Land Occupation and Occurence of River Blindness").

Population distribution

Probably one half of the population is concentrated in the Mossi country, which comprises less than a quarter of the total land area and has the poorest soils. There are districts with a population density ranging between 50 and 100 per square kilometer. In the more densely populated areas, the competition for land for grazing and cropping is intense, leading to continual friction between livestock herders and cultivators. Moreover, soil fertility in many areas is deteriorating because there is no longer sufficient land for fallowing and other means of restoring soil fertility are not economically feasible. On the other hand, there are considerable areas in the South and Southeast which are virtually empty, and extensive river valleys which were depopulated for various reasons in the past and due to onchocerciasis (river blindness). The Western part of the country is still for the most part underpopulated.

Migration

"Migration: Labor migration abroad has provided some relief. Unfortunately, reliable and up-to-date information on the extent and economic impact of this migration is not available. While economic necessity has become increasingly the dominant motivation of labor migrants, the desire of young migrants to emancipate themselves from the constraints of a traditional society dominated by elders has been an important contributing factor. For the most part the labor migration is temporary in character, ranging from a single season to a number of years, although some of the migrants eventually settle permanently abroad. People often work abroad for several periods before returning home to settle permanently. Some of the migrants remit money to their families from time to time, largely to enable them to pay taxes. The greater part, however, apparently bring home money and goods only upon their return. The annual amount remitted or repatriated by labor migrants is not known, but is usually estimated at around CFAF 3 billion, a sum that is close to 30 percent of the money income of the rural population.

Number of foreign migrants

"The 1960/61 sample census estimated the number of residents temporarily absent abroad at 160,861 of whom 56 percent were in the Ivory Coast, 31 percent in Ghana and the balance in other countries. There are indications that the total has since continued to increase rapidly, the 1967-70 Plan document, already, projected the total for 1970 at 372,000. The proportion working in the Ivory Coast has probably risen significantly at the expense of Ghana. Moreover, fragmentary data point to the probability that both the number and the duration of stays abroad by labor migrants have increased. (There are reports now that the number of temporary migrants has increased to about half a million)."

Effects of migration on rural economy

"Labor migration is by no means an undiluted blessing. About 87 percent of the migrants are men, and nearly all come from the younger, most active, age groups. Their absence undoubtedly results in a considerable loss in agricultural production in Upper Volta. Considering the state of under-equipment of Voltaic agriculture, the principal determinant of production is manpower. Since the agricultural season is short, timely land preparation and sowing is extremely important. The peak labor requirements occur at this time, and, subsequently, when weeding becomes necessary. The women and older men left on the farm are frequently not equal to the task. The area under cultivation and the timeliness of farming operations therefore tend to suffer. Moreover, although most of the migrants work abroad as agricultural laborers, the skills they acquire, principally in the cultivation of coffee and cocoa, are not relevant to Upper Volta. Work abroad does accustom people to money income, however, so that returning migrants appear to be more inclined than others to take up the cultivation of a cash crop such as cotton.

Internal migration and its limits

"To what extent internal migration is contributing to a better distribution of population within Upper Volta is largely unknown. The 1960/61 demographic survey showed that about 26 percent of the rural residents were born in another village and that this percentage was highest in those areas to which Mossis, the people occupying the densely populated central region, tend to migrate. The Mossis are undoubtedly pushing into areas bordering their own, but the rate at which this is happening can only be determined by new surveys. There are serious impediments to rapid internal migration. Tribes and lignage groups which have the paramount rights to land within their jurisdiction are reluctant to admit "strangers" and to allot these lands on a scale that might endanger their control. Socio-religious factors also limit migration. While men are willing to go far in search of temporary work, the families that migrate internally are reluctant to move far from their native homesteads. In particular, the need for ceremonial visits to family altars restricts the distance of migration."

Looking to the future, the report made the following recommendations:

Paramount importance of population problem

"Rural Development - The Population Problem: In the future, the population problem, broadly conceived, must be the central preoccupation of any development effort. As yet, the Government is insufficiently

aware of the importance of this problem. There is no disposition to consider family planning as a long-run necessity. It must be recognized that many factors make initiation of such a program extremely difficult.

Constraints on population policy

In traditional African society, the prestige and influence of kinship groups is considered to depend largely on their size. On the tribal plane, the dominant Mossi tribe which inhabits the most densely populated area of Upper Volta, may well feel its relative position threatened by population control measures. Moreover, in the rural areas families attach great importance to a large number of children because surviving male children are the only source of support in old age. Perhaps most important of all, large families are considered essential to agricultural production, particularly considering the lack of equipment in Voltaic agriculture. While family agricultural labor is underemployed or even unemployed during most of the year, there is hardly enough labor available at critical times in the agricultural season, especially at the time of sowing, which must be timely and compressed in a brief period, and again when weeding must be done.

Need for better knowledge

"While family planning cannot be neglected forever, population pressures over the foreseeable future are likely to be relieved only by internal and external migration and by improvements in agricultural and livestock output. The first step is to obtain a more accurate conception of the magnitude and nature of the demographic problem. A new demographic survey is urgently needed to determine what changes in the rate of growth and distribution of population have occurred since the last sample census of 1960-61. This must be coupled with a survey of migration to ascertain the trends in internal and external migration over the last decade and the extent to which such migration has met, or failed to meet the problem. Up-to-date information must be obtained on the magnitude, causes, duration, origin and destination of both internal and external migration flows. A sociological inquiry should seek to illuminate the factors that determine and limit spontaneous internal migration both in the "originating" and in the "receiving" areas. 1/

"A new demographic census could also provide the basis for a sample agricultural census which would provide the necessary information on agricultural and livestock production, the size of holdings, the areas devoted to cultivation, grazing and fallow, and the equipment available. It would provide more reliable information for planning programs for various areas and a basis for a much more accurate assessment of future progress.

Need to promote internal re-distribution of population

"Promotion of Internal Migration and Settlement: In the future, labor migration to the Ivory Coast and Ghana is unlikely to provide as much relief of overpopulation as in the past. Within the last year growing urban unemployment in both these countries has produced measures directed against foreign workers. Fortunately, the vast majority of Voltaic laborers work in agriculture and other occupations where the supply of local workers is short. In fact, a recent Bank study of the

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1/ Attempts were made in 1970 to find financing for such studies, but unsuccessfully. In the last few days, we have learned that the United Nations Fund for Population Activities may have funds available for a census or demographic study and we are urging the Government to present an appropriate request. Attached is a translation of our letter.

Ivory Coast indicates that agricultural development targets in that country are unlikely to be achieved without additional Voltaic labor. Similarly, a considerable increase in cocoa production in Ghana probably depends on a continued influx of Voltaic migrants. So far the number of Voltaics actually expelled by both countries does not appear to have exceeded a few thousand.

Overpopulated areas

"An acceleration of internal migration is therefore essential for the most densely populated areas of Upper Volta, all the more because the possibilities of raising production in such areas are extremely limited. For example, the poorly endowed central Mossi region has few potentialities. Apart from developing rice and garden produce in restricted and scattered areas where there are good soils and water for irrigation, the only possibility appears to be to disseminate certain varieties of higher-yielding imported sorghums whose acceptability by the population has not yet been tested. Past experience has shown that the Mossi region is not well suited to the cultivation of cotton, Upper Volta's principal cash crop.

Areas available for settlement

"The principal directions of internal migration and ressettlement should be toward the relatively empty Fada N'Gourma region in the Southeast and the river valleys where good land is still available. It would be premature and rather costly to establish and staff a Regional Development Office for Fada N'Gourma and carry out a full-scale development program there. Serious consideration should be given, however, to developing a program initially for the much more densely populated and adjoining Koupela region whence migration to Fada N'Gourma can be encouraged through a gradual extension of the program, coupled with the construction of penetration roads. The French Government has expressed some interest in providing assistance for such a program.

"The settlement of river valleys, which offers the most promise, is contingent on an effective campaign to eradicate Simulium damnosum, the fly that is the vector of onchocerciasis."

Remarks:

We should add that French-speaking Africans are generally very sensitive in matters of population control. A fairly general feeling is, to put it briefly, that it is more urgent for developed countries to stop wasteful consumption of the world's resources than it is for poor people in developing countries to have less children, who are their only substitute to social security, and that the developed countries advocate birth control in developing countries only because they are worried that they will not be able to sustain their rate of consumption.

On a more general level, we think that the following recent internal memorandum about Population Dynamics in Rural Africa and extracts of a paper presented by Mr. Oliver Lebrun, of the Unesco regional office in Dakar to a meeting in Dakar on Population Dynamics and Education Development are particularly relevant in Upper Volta.

5.34
B

UNOFFICIAL TRANSLATION

February 24, 1972

His Excellency
Mr. Edouard Yaméogo
Minister of Planning,
Industry and Mines
Ouagadougou, Upper Volta

Dear Mr. Minister:

This is with reference to our report dated November 27, on the economic development of Upper Volta and, in particular, to paragraph 64 of the main report, in which we recommended that a new demographic study be carried out in your country with a view to determine the variations of the growth rate and of the demographic distribution that have taken place since the last sample survey in 1960/61.

You will remember that in 1970 your Government had presented a request to that effect to the Fonds d'Aide et de Coopération of the French Government, which, however, was not able to put the necessary funds at your disposal. You will remember also that the United States Agency for International Development gave a similar reply.

The proposed study, in our opinion, is still very much wanted. If our information is correct, the "UN Fund for Population Activities" has sufficient resources to help any African country which wants to make a census of its population or a national demographic survey. If the Government of Upper Volta has not yet asked for assistance under this program, we are taking the liberty of suggesting that such a request be addressed to UNFPA through UNDP, with a view to obtaining the financial and technical assistance necessary to make a census or a demographic survey. Another possibility might be to include this study in the UNDP Country Program for Upper Volta now under preparation.

Sincerely,

André R. Gué
Western Africa Department

Some remarks about population dynamics in Africa

by André Maillard

"Population density and distribution

Is Africa over- or under-populated?

"The notion that Africa is under-populated should not be dismissed lightly. Perhaps we write too often that African soils are poor, which seems to imply that they could not support a higher density of population. But African soils may not always be as poor as all that. Those with experience cite cases where areas which had been rated very poor suddenly turn out to be fit for an appropriate crop or cultivation technique. Even the famous geographer P. Gourou, whose pessimistic views about soil and climate in tropical countries 1/ seem to have left a deep imprint, later (in 1962) wrote that "it has been said too often that tropical soils are delicate to use... it now appears that Africa does not lack cultivable land; it cultivates about three percent of its total area but the cultivable percentage is at least 50 percent". Many people appear to have been influenced by the fact that with growing population density, agricultural productivity often declines, and have seen this as an indication that the optimum population density has already been exceeded, but this is almost certainly an error, as I will now endeavor to show.

Relation between population density and level of agricultural development

"An interesting study of the interrelationships between population dynamics and agricultural development was made a few years ago by Mrs. Esther Boserup in her book: The Conditions of Agricultural Growth. The Economics of Agrarian Change under Population Pressure (London, George Allen and Unwin Ltd., 1965). Most of the following is based on this book. It appears from Mrs. Boserup's study that population density is not a function of the level of agricultural techniques, as was generally believed, but on the contrary the choice of techniques is largely a function of population density. When land is abundant and the frequency of cropping can be kept very low (around 1/20 or lower), it appears that the most efficient agricultural technique in Africa generally is the long fallow, where secondary forest (not virgin forest, not bush) is burned down (a very efficient technique!) every twenty years or so for cultivation. Mrs. Boserup shows that when population density increases to the point where the fallow period must be shortened (e.g. to 10 years) and/or new tools used, labor productivity usually declines. It will increase again only when population density becomes such that a switch to an intensive cultivation technique becomes unavoidable. In other words, although agricultural techniques are a function of population densities, labor productivity is not a straight function of these densities. From a relatively high point under conditions which permit the long fallow technique, it declines with a marginal increase in population density before it increases again with a higher level of density.

1/ P. Gourou: Les Pays Tropicaux (Paris, 1974); English rev. ed., (London, 1954).

"The implication of the foregoing would be that agricultural development would best proceed by "leaps forward". In other words, it would appear that agricultural policy in Africa should usually aim at much greater population densities in rural areas.

Population growth and the achievement of a higher density to provide a better return on infrastructure investments

"A further argument to the same effect is that greater population densities yield economies of scale, particularly in infrastructure. Mr. Chenery has long ago shown the extent to which the transition from a certain population size to a greater one brings with it an increase in product per head 1/. Mr. Amin in a paper recently prepared for a Unesco meeting on population problems in Dakar 2/ attempted to show that under usual conditions in Africa a three percent rate of population growth would produce savings in transport infrastructure which clearly outweigh the (discounted) cost of additional educational facilities. See the note by Mr. Amin on page 5.35 C.

"One is thus led to the conclusion that governments should pursue a greater concentration of population in the areas most suitable for intensive cultivation. After these areas have been selected, the Government would endeavor to make them attractive to farmers, and especially to young farmers. These especially should be given the possibility of switching to a completely new agricultural system, with intensive cultivation techniques and a new system of land tenure, so that they can enjoy the fruits of their labor. This is only a theoretical idea. A lot of practical questions immediately arise, foremost among which probably is that of land availability. However, land will sometimes be available such as in Upper Volta after river blindness control. Furthermore, it may be useful generally to keep in mind that agricultural development perhaps should not be gradual.

Population growth

" If the foregoing is true, the problem of excessive population growth may be less serious than that of population distribution and might be largely relieved by an adequate redistribution policy. Ideally, the regrouping of young farming couples in the most fertile areas would seem to respond to all the requirements of the situation and particularly to that of a quick increase of population density in limited areas.

Rural development

The goals of rural development

"It would therefore appear that rural development should not aim at minimizing population densities, but mainly at a population distribution that would:

1/ Hollis B. Chenery: "Patterns of Industrial Growth", American Economic Review, L (1960), p 624.

2/ Samir Amin: "Under-populated Africa", paper submitted to the Meeting on Population Dynamics and Educational Development in Africa, Dakar, 29 November - 4 December, 1971.

- minimize urban unemployment;
- maximize the incentives for a switch to intensive agricultural techniques;
- free young farmers from the bounds of traditional society;
- minimize the costs of infrastructure (roads, schools, social services).

A cost-benefit analysis concerning population

by Mr. Samir Amin

"Two agricultural regions A and B of 1000 Km^2 each have different densities: 10 per Km^2 in A (which has a population of 1000) and 30 in B (population 3,000).

"The cost of a transport infrastructure to serve the region which is to be set up in year 0, is independent of the density: 200 km of road which will cost one billion CFA francs. The relative advantage of B over A can thus be evaluated at X = 666 million, the marginal benefit of a community B three times more populated than A.

"What would be the present value of the cost of education if the population increased from 1,000 to 3,000 in 35 years (assuming yhe population growth to be very rapid: three percent per year)? The community, when constant at the level of 1,000 inhabitants, needs eight classrooms at an annual cost (investment and operating costs), of the order of 20 million. Community B would need 24 classrooms (annual cost: 60 million). The transition from the situation of A to that of B would thus involve, in present value terms, an additional (marginal) cost which is:

$$Y = \frac{(20 \times 1.03) - 20}{1 + i} + \frac{(20 \times 1.03)^2 - 20}{(1 + i)^2} + \ldots + \frac{(20 \times 1.03)^{35} - 20}{(1 + i)^{35}}$$

i being the discount rate and measuring the discounted educational cost of the population for the period of 35 years.

"Y decreases when i increases. For i = one percent, Y is roughly 666 million; thus the cost of population growth is equal to the benefit of the higher density X. But for i = five percent, the cost Y is equal to only half of the benefit X; and for i = ten percent, Y is no more than one-third of X.

"From this model, derived from the usual costs of infrastructure and education in tropical Africa, it can be seen that the cost of the dynamics of growth is generally much less than the ("static") benefit of a higher density.

5.36
A

POPULATION DYNAMICS AND EDUCATIONAL DEVELOPMENT IN AFRICA

by Olivier Lebrun, UNESCO Regional Office in Dakar

There is no doubt that the bulk of economic and social measures taken for quite a different purpose (localization of productive investments, policies of employment, health, education, advancement of women, etc.) have a much greater effect on population dynamics than a demographic policy itself.

The latter should be designed as one element in an overall strategy. It should be defined in terms of the objectives of development and should aim to ensure their coherence. According to the objectives of the Plan, which are themselves in part determined by demographic pressures (population size, density, growth and movement) a demographic policy may be pro-natal or anti-natal, may encourage or restrain this or that migratory movement.

It is therefore essentially complementary to a series of measure of an economic and social nature. We shall briefly outline below African demographic policies and the factors on which they depend.

Very few countries have defined a real population policy. Several countries have worked out elements of one, and others do not possess a policy at all.

Policies influencing population distribution

In the sphere of international migrations many countries in the region practise a policy of selective immigration consisting of restraining the arrival of unqualified labour and encouraging highly qualified foreign personnel to settle.

In the sphere of urbanization, one is obliged to admit that the attempts to arrest the growth of big towns have failed. The series of studies on the application of demographic data and analysis to planning and development, held by the ECA at Addis Ababa, proposed in this field:

1. decentralization of public and private industries and their administrative services;
2. creation of new towns;
3. setting up in rural areas of health and education services, improvement of water supplies, hygiene installations, and means of transport;
4. construction of new roads and running of other forms of transport along routes conforming to the programme of redistribution of the population;
5. equal division of social advantages between the inhabitants of the countryside and the towns.

In the sphere of internal migrations the attempts at organizing transfers of population from over-populated or unproductive areas to development areas have hardly been conclusive. In Burundi, Cameroon and

Lesotho they are striving to reduce the numbers in areas of high demographic density, whereas in the Central African Republic efforts are being made to regroup the scattered population along the main transport routes.

Policies influencing demographic growth

In the sphere of the fight to reduce mortality rates, suffice it to point out that all the countries in the region devote a relatively large part of their budget to public health.

The diversity of economic and socio-demographic conditions in the region explains why the attitude of governments towards fertility is not uniform.

The difference in attitude between the French-speaking countries, which are on the whole definitely pro-natal, and the English-speaking countries which are less so, can be explained by the fact that densities of settlement and demographic growth rates are lower in the first group of countries. P. PRADERVAND points out that furthermore the English-speaking countries "are very receptive to the Malthusian theory which numerous advisers and missions coming from the western world, and in certain cases the eastern world, seek to promote". Among the countries which have adopted a pro-natal policy, the Congo (Brazzaville), the Ivory Coast, Gabon, Upper Volta, Malawi, Madagascar and Zambia must be mentioned. In support of this policy they have taken the following measures: family allowances, prohibition of abortion and the sale of contraceptive products. It should be noted that the degree of application of these measures is very irregular. In certain countries which have adopted a pro-natal policy one notices the presence of private family planning organizations. Four countries in the region (Botswana, Mauritius, Ghana and Kenya) have officially adopted an anti-natal policy. A large number of English-speaking countries and a few French-speaking countries have family planning movements.

The concept of family planning is wider than that of birth control. It comprises four elements:

Limitation of the size of families

The programmes undertaken to this end are based on the hypothesis according to which parents would limit the number of children they have if they were made to understand the advantages which would result from this and if they were provided with the necessary means and information. In general, these programmes have met with serious resistance. It may be asked with P. PRADERVAND, if it is not futile, in view of the present mortality rates in Africa, to propose family planning services 1/. In support of his argument he quotes CALDWELL, who points out that "the levels of mortality in tropical Africa still remain so high that those who are contemplating the introduction of family planning should ask themselves very seriously whether, by so doing, they do not risk jeopardizing the chances of survival of a small family".

1/ In many regions of West Africa, to be absolutely sure of having one son still surviving when the father reaches the age of 65, a couple must have a minimum of seven children.

Pradervand adds that, in any case, no programme of birth control can be successfully carried out in a country where the mortality rate is greater than 12 per thousand.

There are other obstacles in the way of a policy of birth control: illiteracy, the shortage of health workers, the lack of development of the health service network, and the very slight participation of women in non-agricultural activities...

The spacing out of births in order to protect the health of the mother and child

In most traditional African societies there exists a natural system for spacing out births. In these societies the system of polygamy allows the separation of the husband and wife during the period of breast-feeding, which may exceed three years. Modernization, by doing away with these customs, tends paradoxically to cause the births to occur closer together. This results in a problem of health for the mother and malnutrition for the children and also a great increase in premature births.

The spacing out of births is not incompatible with a pro-natal policy and may even be an element of it to the extent that it involves a reduction in infant mortality. However, this measure normally forms part of an anti-natal policy.

Reduction in the number of abortions

The practice of abortion, which is on the increase, does not yet seem very widespread in Africa. The use of contraceptive methods should normally reduce this practice, but may equally well increase it, if cases of failure are numerous.

The fight against sterility

Certain regions of Africa, particularly southern central Africa, are characterized by a low level of fertility. Among the factors of sterility, venereal diseases must be particularly mentioned. In several countries a large number of people consulting family planning services request help in curing sterility.

Olivier Lebrun
UNESCO Office
Dakar

5.E - SECTOR ANALYSES

1. AGRICULTURE

The difficulties of agricultural development in Upper Volta are well depicted by the following paragraphs from our economic report dated November 27, 1970:

Poor natural conditions

"Natural, human, technical and economic conditions are not favorable to agricultural development.

"Harsh Climate and Poor Soils

"Over the greater part of the country, the annual rainfall is slight (less than 900 to 1000 mm) and the rainy period only lasts four months. There are considerable variations in rainfall from year to year (in the range of about 20 percent) and its distribution over the season, particularly at the beginning of the cropping period. The extreme South-West (Bobo-Dioulasso, Banfora and Gaoua) has the highest rainfall (1100 to 1300 mm over 4 or 5 months, or occasionally 6 months). High average daily temperatures in the dry season -- between 26°C (77°F) and 30°C (86°F) -- and in the rainy season -- 25°C (77°F) and 27°C (81°F) -- and the constant blowing of the harmattan (desert wind) from November to April, cause a high rate of evaporation, always in excess of 2000 mm annually. This type of climate only permits the cultivation of fast-growing, drought-resistant annual crops (millet, sorghum, cotton, groundnuts, sesame) and prevents the cultivation of perennial high-value tree crops. Even in the South only mangoes and cashews can be cultivated without irrigation; the more demanding crops (sugarcane, rice and citrus) must be irrigated. The shortness of the rainy season causes frequent bottlenecks in the use of agricultural labor, especially in preparing the fields for planting and in weeding, thus limiting the area which can be cultivated. The beginning of the rainy season is so erratic that sowing often has to be repeated several times, and it is difficult to fix the optimum planting date in any given year.

"Sedimentary soils, usually of granitic or sandstone origin, have a low production potential, and are frequently characterized by an underlying lateritic hard pan, sometimes very close to the surface, which prevents proper drainage and limits the root development of crops, causing them to suffer from too much or too little water depending on the rainfall at different periods. These soils are also poor in phosphoric acid and nitrogen. The soils formed from schists or basic rocks are richer in nutrients and have better physical properties, but the area where these are found is very limited. All these different soils are very much subject to heavy erosion, particularly by rainstorms after the natural vegetation has disappeared, either at the end of the dry season or immediately after sowing. The soils in the valley bottoms, which contain a lot of clay and organic matter, are the most fertile, but they are difficult to plow and to drain because of their texture.

"The land has little relief, which makes it difficult to construct irrigation systems, although these would be of value. The valleys are not very deep, so that the dams often have to be very long and the reservoirs are shallow. The resulting loss by evaporation is very great (80 - 85 percent) and the cost per cubic meter of water actually used is exceptionally high (CAF 100 to 200 per cubic meter). Since the land only slopes very gently, it is difficult to ensure proper drainage and to protect irrigated areas in time of flood.

"Over-exploitation and Lack of Equipment

Unfavorable population distribution

"The natural disadvantages of the environment are further accentuated by the unequal distribution of population. The greatest densities, more than 80 inhabitants per square kilometer, are to be found on the Mossi plateau. Considering the poverty of its granitic soils, and the limited annual rainfall of between 650 and 880 mm., 0.4 to 0.5 hectares of cropped land are required per head of population under traditional methods of cultivation, and fields should be allowed a fallow period of at least 4 years to maintain a proper level of fertility. Allowing for the fact that between 5 and 10 percent of the land cannot be cultivated because it has a hard pan or is too rocky, or because it is taken up by roads and village settlements, the Mossi plateau should in theory not support a population of more than about 40 inhabitants per square kilometer. In fact, the continuing increase in population has entailed a shortening of the fallow period, with a consequent impoverishment of soils which were already far from fertile. On the other hand, there are vast areas both in the East and sparsely populated that, although the potential for production is considerably higher than elsewhere it cannot be fully exploited. Health conditions also hinder cultivation, particularly in the valleys where onchocerciasis is prevalent. In other areas farmers are debilitated by malaria and Guinea-worm, particularly at the beginning of the rainy season, just when much hard work is necessary. Human trypanosomiasis either prevents or hinders development of the wooded areas in the south, and animal trypanosomiasis is a very serious handicap to livestock raising in the agricultural regions.

Poorly equipped farmers

"Farmers generally lack the means of production they need to overcome the problems with which they are beset. The soils are so poor that chemical fertilizers and manure are essential; and seasonal labor bottlenecks really require the draft equipment for land preparation, ploughing and weeding. But most of the farms produce chiefly subsistence crops for sufficient cash to buy either fertilizers or farm equipment. The problems of farming in these conditions are compounded by the separation of agriculture and livestock raising; indeed, because of the prevalence of parasitic diseases, the difficulty of pasturing animals in cultivated areas, especially where less and less land is left fallow as over the greater part of the farmers are much more inclined to entrust any cattle they may possess to the care of herdsmen than to keep them permanently on their farms. This practice, together with a certain reluctance on the part of farmers to

engage in animal husbandry, increases the difficulty of introducing the use of animal-drawn equipment and manure on the farms. Moreover, the social structure is so strongly hierarchical that there is little opportunity for the younger farmers to use their initiative, since they have no control over the family property, either land or cattle.

"Shortage of Senior Staff and Equipment in the Agricultural Services

Extension and research agencies

"Shortage of qualified staff in the agricultural development services makes it difficult to provide farmers with the technical advice they need. The lack of necessary equipment for this work (vehicles, small farm machinery and supplies) is even more serious. The agricultural research agencies have only very limited facilities and can only deal with the most urgent problems. IRAT (Institut de Recherches Agronomiques Tropicales et des Cultures Vivrières) has three experimental stations at Saria (for the selection of suitable strains of sorghum and millet, fertilizer trials on subsistence crops, and the testing of different types of animal-drawn equipment), at Moghtedo (rice-growing and irrigation farming) and at Farako Ba (market-gardening, production of fodder and sugarcane trials). IRHO (Institut de Recherches pour les Huiles et Oléagineux) has a station at Niangoloko (variety and fertilizer trials on groundnuts and sesame) and cooperates with IRAT on experiments with groundnuts at Saria. IRCT (Institut de Recherches du Coton et des Textiles Exotiques) has an officer at Bobo-Dioulasso who is doing experimental work on cotton at Saria and at various places in the cotton producing area. SESUHV (Société d'Etudes Sucrières de Haute Volta) is conducting trials with sugar cane near Banfora. MAVOCI (Manufacture Voltaique de Cigarettes) is experimenting with tobacco growing near Hounde. ORSTOM (Office de la Recherche Scientifique et Technique Outremer) has carried out several soil surveys and studies and produced a general soil map of Upper Volta on the scale 1:500,000 and a soil map of the Red and White Volta River valleys on a scale of 1:200,000."

Poor development potential

From the same report are extracted the following paragraphs summarizing the possibilities for agricultural development:

"Possibilities for agricultural development are limited in Upper Volta. The poor soil, the dry climate, the uneven distribution of the population, the lack of qualified staff, and the shortage of domestic financial resources, all contribute to the difficulties and slowness of efforts to raise production. Some progress has been made, however, and on this basis it is possible to give some indication of the principal lines along which a relatively modest program, taking into account existing constraints, can be worked out.

For a better population distribution

"Priority should be given to promoting a better distribution of population, so that use can be made of the two essential factors of Voltaic agricultural production, land and labor. Demographic pressure on the Mossi plateau must be relieved as much as possible by encouraging and accelerating migration and developing the areas of good agricultural

potential in the least-populated regions (the Southeast, the Southwest, and the valleys of the central plateau).

The direction of foreign aid

"Within the framework of this priority, financing from all sources must be directed to projects and measures that will bring about the largest production increase without maintaining the traditional distinction between investment cost and operating or recurring costs.

"Although certain ORDs now receiving massive foreign aid have obtained respectable results, their future remains problematical because financing institutions have made no long-term financial commitments. The termination of this assistance might permanently endanger current programs, which involve prolonged efforts to diffuse modern methods and to organize farmers and will therefore require competent staff for a long time. Upper Volta is not now capable of financing from its own budget programs that are not yet, and will not for some time be, financially self-supporting. Neither can the country cut the cost of such programs, since it does not have sufficient qualified staff of its own that would enable it to dispense with the help of foreign technicians.

"This shortage of staff is a determining factor not only in the operations already undertaken but, above all, in undertaking new projects. It would be dangerous to launch an agricultural development program without making sure that Voltaic personnel could take over from foreign specialists as soon as possible, especially since the profitability of potential production does not make it possible to bear the heavy cost of employing foreign staff for very long. A major effort should thus be undertaken to train national staff in the work to be done.

Need for careful studies

"The shortage of available funds is a further reason for special care in the selection of goals and methods. Any project must therefore be studied very seriously to get a full appreciation of the factors involved in the problems to be solved and to compare the effectiveness of various possible solutions. A large volume of data is available on general problems in Upper Volta, and it would seem redundant to add to it; it would be very useful, however, to centralize it in one office with copying facilities. Where specific rather than general data are needed for the preparation of a detailed program, on the other hand, few figures are available and objective assessments can seldom be made. After an exhaustive inventory of the data on hand and a national agricultural inquiry to bring together the essential general information, it would be possible, following the broad outlines set under the Plan, to organize a program of research focusing on the fundamental data required on regions where projects should be undertaken. The gathering of such data, their use, and the preparation of the projects should be assigned to a central team of specialists working with all of the Ministries concerned. The economic analysis of the projects should take account of the year-to-year variability of yield andweigh its effects on the funds available to farmers for repayment of loans.

The need to adapt to the reactions of the farmers

"The projects must be carried out very gradually so that the approach to the peasants, whose reactions are largely unpredictable, can be continually improved. No matter how carefully a project may be drawn up, it always involves a number of assumptions, especially in regard to participation by farmers and the ways in which they will use resources available to them. It is therefore important to record results regularly from the beginning, and to analyze them in order to adjust the programs accordingly. Such progress reports could have prevented several costly errors in Upper Volta. They cannot be made solely by those responsible for on-the-spot action, who are poorly situated to appraise the results of their own work and often do not have the time. Not only the preparation of projects but permanent control of their execution should be the responsibility of a team of specialists in the Ministry of Agriculture.

The farmers are flexible

"Experience shows that Voltaic peasants are perfectly capable of adopting new methods, either under the impulse of an extension program sustained over many years as in the case of cotton, which requires fairly advanced techniques, or on their own initiative, as in the case of rice, which is cultivated in a fairly rudimentary fashion. The spontaneous resettlement of Mossi farmers proves that they are trying by the only means at their command to solve the major problem of the land shortage in their area. Extension services and migration should thus be the principal factors in any program for agricultural development in Upper Volta.

Possible projects: export crops

"Several projects might be planned:

"Projects in support of export crops should be continued. For food crops it would be useful to investigate the reaction of growers to high-yielding farinaceous sorghums. The possibilities for regional crop specialization should be studied in the interest of obtaining a better utilization of natural resources and more balanced national growth.

Small irrigation schemes

"Irrigation of natural bottom-land and of land downstream from existing dams should be developed where the population density is high enough for the peasants to realize the desirability of a kind of farming which is difficult but which makes it possible to exploit land which had remained unutilized as long as there was plenty of fallow. The introduction of irrigation where it has been unknown entails such a revolutionary change that very prudent action is required; any public investment that does not take into account the knowledge possessed by the farmers and the efforts they are willing to make is likely to remain unused and thus result in a loss of capital that would be better employed elsewhere. Emphasis should accordingly be put on small projects in which the local population is really interested and which can contribute directly or indirectly to an increase in production and marketing.

The need to reclaim deserted areas

"The settlement of uncultivated land in the White Volta River valley and on the eastern and southwestern plateaus will relieve the over-exploitation characterizing the heavily populated areas. In many regions, the population density has reached a point where fallow land is no longer sufficient to maintain yield at an adequate level without very costly fertilizer applications and a radical modification of traditional farming methods. This type of intensification would be a long, difficult process, and it is by no means sure, on the basis of existing knowledge, that it would be profitable. Only the migration of a considerable proportion of the population is likely to provide the necessary means for keeping the amount of land available per capita at approximately current levels.

Need for research

"Agricultural research and experimentation are absolutely essential. In addition to present research, which must be continued, two points should be studied:

"Use of the black clay soils which cover large areas of the White Volta River valley. Their fertility potential is high but their physical characteristics will make them hard to cultivate. They are little used so far in Upper Volta, and IRAT has only begun to experiment on these soils near Saria.

"Methods and equipment for soil preparation with tractor-drawn implements. These would be very complex long-term experiments, since it would probably be necessary to devise entirely new equipment.

An extension strategy

"Extension services to farmers should be continued and gradually broadened in terms of the scope and diversification of their programs wherever conditions are favorable. Extension programs should gradually be broadened to include specific measures for integration of livestock with farming (use of draft animals and farm fattening of cattle), the organization of precooperative peasant groups, the regrouping of cultivated areas and the rational utilization of fallow land for grazing herds, the maintenance of access roads, the improvement of bottom land suitable for rice-growing, and the digging of wells."

We are also presenting to you:

- a Washington Post article dated November 15, 1971 about famine in Northern Upper Volta;
- a note on nutrition problems;
- a progress report on food aid issued by the World Food Program;
- a note on the Regional Development offices (Organismes Régionaux de Développement, ORD), Upper Volta's peculiar machinery for agricultural extension ;
- a note on the Kou Valley, which you are going to visit ;
- a note on grain price stabilization.

Upper Volta Threatened With Famine

By Des Wilson
London Observer

OUAGADOUGOU, Upper Volta—This friendly, remarkably proud, but little-known country in West Africa is poised on the brink of famine. It will come in the new year and it is inevitable

The famine is caused by too little rain. It should have fallen steadily from June to mid-October, the traditional rainy season, but the last fell was on Sept. 13. And when it did come it was in torrential downpours that burst the clay wells and washed them and the crops away.

The storms also washed away most of the year's toil and the hopes of the farmers, their wives and their children, for they all work together in the fields and live on what they produce.

In a productive year a farmer with a working family of five can hope to earn about $72. This year many will earn no money at all, for the harvest will be pathetic and many of their animals will die of thirst.

Since 95 per cent of Upper Volta's 5,500,000 people live this subsistence life on the land, a disastrous rainfall or drought for them is disaster for the whole country.

If ever there was a subsistence society, this is it. Only 20,000 of the 5,500,000 Voltans have paid jobs. The rest live in circles of mud-brick huts, often three generations together, for family loyalties are absolute, on land that is hostile to human life, and without services or machinery of any kind. Ninety per cent cannot read or write.

Their lives are dominated by the need and quest for water. Women, carrying their babies in slings on their backs, will set off from their circle of huts with a clay pot balanced on their heads, and with no apparent complaint and quiet dignity, walk miles from their homes to the nearest well. Sometimes they do this two or three times a day.

Like the men, they have their labors frequently marked by unforeseen calamities. Recently I had a woman pointed out to me who recently trudged, baby on her back, 12 miles for a bowl of water. She then turned and walked back. A mile from home a goat suddenly ran out from the scrub and so startled her that she dropped the bowl. Rather than face the family she set off back the 12 miles to the well.

Of all the help the farmers of Upper Volta need to realize even the limited potential of this arid, near-desert, they most of all need water. Rain they cannot cause or control, but when it comes it must be kept, and where possible kept clean.

Unfortunately their inadequately constructed wells tumble in if the rain is lost. So a major need here is a massive well-building program. Concrete wells will save the time of the men so they can do more in the fields, will reduce the hardship of the women and enable them to do more on the farm and also devote more time to their children.

Above all they will substantially reduce disease, for many of the children are riddled with disease because the family is forced to drink, wash, clean clothes and water animals with what they can cart on their collective heads from a dirty waterhole or cutsize puddle.

Recently, while bouncing over the unbelievably bad roads in the desert to the north, I found two Americans, about 22 years old, pouring concrete at the foot of a well 40 yards deep. They were sunburned, shiny with sweat, and surrounded by 10 highly excited Africans for only that day they had struck water. By the way they celebrated, it could have been oil.

This is a part of a Peace Corps operation that (with some Oxfam help) has built 750 wells in the Upper Volta.

Upper Volta is possibly the poorest country in the world—the national product per capita is only $48, compared with $1,650 in Britain.

Unlike some places in the third world, affluence does not mock the country's hardship from even the smallest corners. Everyone is poor. One reason for the continued popularity of Sangoule Lamizana, who became president as a result of a coup backed by the people and the army in 1966, is that he has lived soberly himself, refusing the presidential palace, and has kept the economic margin between the country's educated elite and the majority reasonably narrow.

No matter how resourceful the Voltan leaders are, the country is hopelessly underfinanced. Its total budget of $28.3 million would be unacceptable to any big city. And the trouble with the hand-to-mouth economy is that you can never invest in developing the country; the problem is always to keep it alive.

So there is no money for education (there are only 30 secondary schools), no money for health services, and—most important—no money to develop agriculture. The peasant farmer has to take all the risk. If he suffers even more hardship in order to save to use some modern tool or fertilizer and then the rains let him down he has lost his money, his year's work, and his food for the following year.

And all the time the soil becomes over-used and eroded, and the farmer has to work harder to obtain less. That is in a good year. This year, with no rain, he has the famine to fear as well.

ANNEX I

ANNEX I to
AGRICULTURE

NOTE ON NUTRITION

As viewed in our economic report

Our economic report dated November 27, 1970, had this to say about nutrition in Upper Volta:

"The food problem does not appear to have been aggravated as yet by population pressure. That does not mean that there has been a notable improvement either, particularly in the traditional period of shortage just before a new harvest. The area under cultivation has increased and that under fallow has diminished without any increase in yields."

As viewed by other economists

A different assessment was made in July 1970 by FED economists who wrote the following:

"Upper Volta suffers, if not from chronic famines, at least from generalized undernourishment which becomes worse in periods of food shortage. Such shortage, which happens every year just before a new crop becomes available, is aggravated when the rainy season is particularly short, which happens every three or four years. Food scarcity then drives up food prices on urban markets. This situation explains why farmers give absolute priority to food crops and devote only marginal resources to marketable crops. The latter, with the only exception of cotton, are regarded as forced on the farmers by their fiscal obligations. Recent events have confirmed the precariousness of the food situation."

An emergency action is underway

At the end of last year, FAO's early warning system indicated an acute grain deficit in the pre-harvest period - February to July 1972 - and the Government had to call for emergency aid. The World Food Program recently announced that it will supply maize meal for 150,000 persons for two months at a cost of US $488,500. Other contributions will be made by the European Economic Community and by the Government of the United States.

Upper Volta 22

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Nineteenth Session

Rome, 29 March - 7 April 1971

Agenda item 9

PROGRESS REPORT ON APPROVED PROJECT

I. BASIC DATA

Country, project number and title: UPPER VOLTA 243 - Construction of small dams and wells

Approved by the Executive Director: 12.5.67

Agreement signed: 16.2.68

Notification of readiness accepted: 16.2.68

Total food cost as of 30.9.70: $304 600

Total cost to WFP as of 30.9.70: $484 000

Date of first distribution: 24.3.69

Duration of WFP assistance: 5 years

II. PURPOSE OF PROJECT AND OF WFP ASSISTANCE

1. Development of agriculture is the main objective of the current four-year development programme of the Government. Lack of water during the dry season in the most densely populated eastern part of the country causes great hardship to people and livestock and limits possibilities of cultivation. For this reason the Government has organized the construction of small dams and wells through the voluntary work of villagers.

2. The aim of the project is to construct 750 wells and some small dams and reservoirs which will supply water for domestic use, for cattle and, where suitable soil is available, for irrigation of small gardens where vegetables can be grown. The project includes also the completion of some dams, the construction of which started some time ago, deepening of wells and preparation of irrigated areas around the existing dams.

For reasons of economy, this document is produced in a limited number of copies. Delegates and observers are kindly requested to bring it to the meetings and to refrain from asking for additional copies, unless strictly indispensable.

3. The heavy work to be performed requires considerable time and, although well and dam construction had been going on also in the past, it was expected that food assistance would increase activities in this field. WFP food assistance has been requested to provide an incentive to villagers to undertake voluntary work during the dry season on well and dam construction.

III. PROGRESS OF PROJECT

Utilization of WFP commodities

4. A total of 1 648 metric tons of food has been committed to the project, i.e. 726 metric tons of maize, 558 of wheat flour, 84 of canned fish, 168 of condensed milk, 84 of vegetable oil and 28 of sugar.

5. Of the total quantities committed, 797 metric tons had been shipped, 794 received and 467 distributed as of 30 September 1970. The quantities received and distributed at that date represent about 48 percent and 28 percent respectively of the total to be supplied for the duration of the project. The quantity supplied represents about 160 percent of the target of supplies for the 18 months which had elapsed.

6. Food is distributed on the basis of four individual rations per family for each day of work performed on the project. Only one person per family is supposed to work on it at the same time.

7. Some 697 500 man-days of work are envisaged to be remunerated with food. As a normal average, the construction of one metre of well needs 39 man-days, and the preparation of a hectare of irrigated field requires 600 man-days. Activities under the project are limited to the period January-May, the months November and December being spent on planning and preparation.

8. In 1969 the lack of adequate internal transport facilities hampered food distribution. In 1970 the situation improved considerably thanks to the availability of a 12-ton lorry.

9. No great difficulties have been encountered in executing the project besides the above-mentioned initial difficulties to arrange internal transport. Adequate reporting is not easy to obtain due to the scattered sites of operation. The inclusion of wheat flour in the food basket created problems because there are no bakers in the villages. Beneficiaries have, however, learnt to use the flour to make fritters when they are not able to bake bread themselves.

10. A total of 4.5 metric tons of WFP food have been lost, which represents less than one percent of the commodities received. Losses have been caused by insect infestation (maize), inadequate packaging (wheat flour and condensed milk), transport under high temperature (canned fish) and rough handling (vegetable oil and sugar).

Government and external support to the project

11. Government contribution: Overall responsibility for execution of the project rests with the "Ministère de l'Agriculture et de l'Elevage." Details of operations are entrusted to the "Directeur de l'Hydraulique et de l'Equipement Rural."

12. The financial contribution of the Government, estimated at US $304 640 during the five years' duration of the project, amounted to approximately US $30 000, representing 10 percent of the Government's total contribution over 30 percent of the life of the project (up to 30 September 1970). It covered salaries of personnel concerned with food handling and storage and of technicians, transport costs of food and materials and supply of equipment and materials.

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13. External aid: External aid to the project is provided by various agencies depending on the region in which it operates. The agencies are the French "Fonds d'Aide et de Coopération" (FAC), US AID and OXFAM. The external assistance, estimated at US $867 000 during the five years' duration of the project, amounted to approximately US $350 000 up to 30 September 1970. It was used to pay the salaries of technicians and workers and for the purchase of materials, tools and equipment.

14. Technical supervision of the work is entrusted to different agencies in the various regions, i.e. to the "Direction de l'Hydraulique et de l'Equipement Rural," to the French non-governmental agency "Société d'Aide technique et de Coopération" (SATEC) and to the U.S. Peace Corps Volunteers. Land development is being supervised partly by the Regional Organizations for Development (ORD).

Achievements

15. In the first half of 1970 about 240 wells were constructed in four different regions. In the first 18 months of operation about 345 000 man-days were remunerated with WFP food in connexion with well digging; about 31 000 man-days were worked to prepare 71 hectares of land for irrigation. Total man-days worked represent approximately 50 percent of the target. Owing to initial difficulties with regard to internal transport (see para. 8 above), these man-days were remunerated with a smaller daily ration than the one laid down in the plan of operations. For this reason the percentage of the target of man-days remunerated is higher than the percentage of food utilized. However, although the distribution of food was lower than envisaged in the plan of operations, WFP food has proved to be an important incentive for the villagers to participate in works undertaken under the project.

ANNEX IV
to AGRICULTURE

ORGANISMES REGIONAUX DE DEVELOPPEMENT (ORD)

What an ORD is

An ORD is a decentralized agency, administered by a Board of Directors, that is responsible for formulating and implementing development projects within its region. The role of the Rural Development Department in the Ministry of Agriculture is virtually restricted to preparing budgets and supervising their execution, and to personnel administration.

How it is established and staffed

Under existing development policy the execution of programs on a regional basis is delegated to the ORDs, operating under the control of the Ministry of Planning and the Ministry of Agriculture. Principal ORDs operations that have been established have had the benefit of financial support from abroad, the Banfora and Yatenga ORDs from FAC, as well as foreign technical assistance. The latter is handled by foreign companies ("Société d'intervention") which are responsible for carrying out the program, organizing the extension services and the progressive Voltaization of the ORDs. A number of companies, including SATEC, BDPA, SOTESA, CFDT and CIDR, have received contracts to assist ORDs in this way. It will be noted that in principle the ORDs are only activated when they are assured both financing from abroad and the provision of technical assistance by a foreign agency. The ORDs at Fada N'Gourma and Koupela, for instance, exist only on paper. The ORD of Gaoua is an exception to the rule as it obtains technical assistance from CIDR but is financed out of the budget of Upper Volta.

How it works

The main efforts of the ORD's focus on farmers' education through the provision of an extensive ("encadrement rapproché) and the propagation of progressively more sophisticated methods of cultivation ("thèmes techniques progressifs"). The methods vary from company to company. CFDT concentrates largely on cotton, while SATEC and BDPA seek to transform the farm enterprise as a whole. CIDR is trying to organize agricultural producers into groups. Despite these variations, however, the basic principles are the same for all, and the main lines of action may be summarized as:

establishment of a network of agricultural extension workers;

distribution of short-term credit for seeds, fertilizer, and insecticide; and of medium-term credit for the purchase of cultivating equipment, carts, draft animals and sprayers;

provision of technical advice (timing agricultural operations; sowing in line; use of draft animals; methods of spraying and fertilizing, etc.);

marketing cash crops;

provision of rural infrastructure (roads, wells, dams) in collaboration with the Department of Water and Rural Equipment and the Department of Public Works, although it should be noted that this type of work is seldom under the direct responsibility of the ORDs.

Organismes Régionaux de Développement (ORD)

Defects of the system

This organization of agricultural development, despite its apparently rational character, has a number of weaknesses. In the first place, it deprives the Government of part of its control over agricultural development, which is in fact in the hands of agencies or services that determine the basic orientation of the ORDs. This excessive independence of the regional bodies weakens the effectiveness of the Ministry of Agriculture, with respe ct to both substance and policy. As to the actual work of the ORDs, it is clear that efforts have mainly been devoted to agricultural extension work and that little has been done for livestock or agricultural equipment. Thus, most of the available funds have been used to cover the recurrent costs of educating the farmers. The future of the ORDs is still uncertain: financing, which is still foreign, is by no means assured, especially since the results achieved are as yet insufficient to support the cost. The withdrawal of the financing of SATEC's operations in the ORD of Ouagadougou is a case in point. Finally, it should be noted that the ORDs and the "sociétés d'intervention" require large numbers of supervisory and local counterpart staff, the cost of which has to be borne by the domestic budget. The lack of any plan for training senior and middle-grade staff for work in rural areas to replace the foreign experts at less expense, makes it very difficult to cut the cost or to expand the scale of the operations of the ORDs.

Advantages of the system

On the other hand, the delegation of powers to the ORDs has a number of advantages. By bringing decision-making closer to the farmers it has been possible to take account of local problems; agricultural developments are handled more actively and with less red tape; the officers responsible for rural affairs are in closer contact with the farmers, who thus enjoy much more effective assistance in terms of advice and supplies assistance than would otherwise be the case. But the transfer of responsibility away from the center has also brought a number of difficulties in its train. The lack of qualified senior staff and funds has made it impossible to build up a strong team in the Ministry. The latter is unable to maintain proper coordination, or technical and financial control, as it is supposed to do. There is no single source of complete up-to-date information on agricultural activity in the country. The country's agricultural statistics, which had never been very complete, are now either almost non-existent or only produced very late. Activities which cannot be shown to justify the presence of a full-time officer in each ORD are not undertaken.

An outstanding example of the advantage of centralizing certain activities is the success of the nation-wide seed protection campaign; FED financed a team whose function was to popularize disinfection of seed throughout the country by means of posters and film shows. The ORDs distributed the necessary material. The result of this activity by a team whose work was well coordinated with that of the ORDs was the distribution of nearly 250,000 packets of thiolal by the farmers.

The KOU Valley

Rice development is being financed and assisted technically in the Kou Valley, 10 km. away from Bobo-Dioulasso, by the Republic of China (Taiwan). A 44-man Chinese mission, comprising irrigation experts and agronomists, manages the project.

The project area covers 1260 hectares. It was unoccupied before the project.

Only farm families with at least four active persons are settled in the Kou Valley. They undertake to do the farm work themselves and to reside in the villages created for them. Each family is given one hectare of land.

There are far more candidates than can be admitted. In 1971, there were 1700 candidates for 300 admissions. The choice is made by lottery. Forty percent of the families are from the Bobo-Dioulasso area; the remainder from other areas. The following is the schedule for the settlement:

1970	100 families
1971	212 families
1972	300 families
1973	300 families
1974	338 families

Two crops can be obtained each year, and the yields have been very good, at 6,700 - 6,800 kilos/ha.

The crop rotation will include tomatoes. The final objective is 1,260 hectares grown to rice in the wet season and 630 in the dry season and 400 to 500 hectares grown to tomatoes.

Annual costs per hectare are:

fertilizers	CFAF 15,000
insecticides	5,000
seeds	1,500
tools	1,500
water levies	3,000
overhead exp. of cooperative	3,000
	30,000

- $120/ha/yr

On the basis of slightly declining prices, average annual family income is expected to be about CFAF 140,000 to 150,000.

All the families are required to be members of the cooperative. Upon settlement, they are provided with food provided by the World Food Program until the first crop is in, and they are equipped with tools and materials to build a hut with a cement floor, two doors and two windows. The cost of such equipment, which is estimated at CFAF 40,000 is to be reimbursed in three installments during the first three years.

The Government has hinted repeatedly that they would like the same type of action to be repeated several times in Upper Volta with support from the Bank Group, but we have always declined, because we feel that, despite the relatively spectacular yields, investment costs, which are estimated at $5,000 to $6,000 per hectare, are so high that a satisfactory rate of return could not be obtained.

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GRAIN PRICE STABILIZATION

IN UPPER VOLTA

AND NIGER

Three aid agencies: CIDA, FAC, and USAID, are cooperating under a project prepared with USAID assistance by the Mutual Help and Guarantee Fund (Fonds d'Entraide et de Garantie) of the Conseil de l'Entente (the regional organization which groups Ivory Coast, Upper Volta, Niger, Togo and Dahomey) with the objective of stabilizing the prices of grains and "niébé" through the provision of storage facilities and related equipment. To administer the project, Upper Volta has set up OFNACER (Office national des Céréales - National Grain Agency) and Niger has set up O.P.V.N. (Office des Produits Vivriers du Niger - Foodstuffs Agency of Niger). USAID is financing silos and part of the technical assistance, FAC is financing equipment and CIDA vehicles. FAC is also conducting a study to determine how many silos will be needed.

The project seems to respond to a real and even acute need, but it will be difficult to ensure an efficient execution.

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2. LIVESTOCK

Volume III of our economic report dated November 27, 1970, which is devoted entirely to livestock, summarizes the situation and prospects as follows:

Importance of livestock for the economy

"Livestock is of considerable importance to Upper Volta's economy contributing between 11 and 12 percent of GDP and over half of total exports. Apart from exporting its own livestock, Upper Volta provides transit facilities for large numbers of animals moving from Mali and Niger to markets in the Ivory Coast and Ghana. In the four-year period 1966-69 cattle in transit accounted for 46 percent of total live cattle exported, while sheep and goats in transit represented 27 percent of total exports of such animals. These figures, however, somewhat underestimate the "foreign" contribution to exports. Thus of the number of Voltaic cattle exported in this period (both live and as meat), 30 percent probably represented imported animals absorbed into Voltaic herds. For sheep and goats the corresponding percentage was 34.

Deplorable situation now

"The productivity of Upper Volta's livestock industry is generally low. The annual offtake from the country's herd of about 2,500,000 cattle is only about 10 percent and the meat yield (in terms of carcass weight) per animal maintained is only 11.2 kg as compared with an estimate of 14 and 15 kg for Niger and Mali respectively. Inadequate feeding is one of the principal reasons for this low output. Over much of the country there is intensive competition between man and beast for available land. Large parts of the Sahelian North suffer from overgrazing. Under these conditions, periodic droughts cause severe losses. In addition, livestock diseases take a considerable toll. The Livestock Service, starved of adequate operating funds, has been unable to combat disease effectively. There is danger of a renewed outbreak of rinderpest owing to the sharp reproduction in vaccinations of young animals. The incidence of pleuropneumonia, trypanosomiasis, and other diseases has also considerably increased.

Improving health of livestock

"There is reason to believe that a properly integrated disease control campaign costing perhaps CFAF 1.7 billion over the next ten years would increase the offtake of cattle by 1 or 2 percent and increase the weight of animals marketed, giving rise to total benefits far outstripping the possible cost. It should be a multi-purpose campaign providing immunization against bovine pleuropneumonia and treatment of animals against external and internal parasites, and consolidating and protecting the gains from the preceeding campaign against rinderpest. At the same time the opportunity provided by the presentation of cattle for treatment could be utilized as a means to persuade herders to castrate their animals, to enable them to buy supplementary feed and salt licks and to give them advice on the improvement of animal husbandry. However, the effectiveness of a disease control program in Upper Volta would depend on requisite cooperation from Mali and Niger to ensure in particular that animals entering from these two countries are properly vaccinated against diseases.

Proposed ORD in the North for livestock development

"In the northern Sahelian region, which accounts for about 15 percent of Upper Volta's cattle and 29 percent of the sheep and goats, it is important to establish a separate ORD (Regional Development Office) for livestock. A pre-feasibility study looking toward the establishment of such an ORD was started early in 1970 with financing by FAC. This ORD should focus on better disease control with the help of personnel delegated from the national Livestock Service, the development of water supply and more rational use of available range land through rotational grazing, and the provision of advice for the improvement of animal husbandry. The necessary agrostological study of this region has already been carried out.

Other types of action for the rest of the country

"In the South, where generally more pasture is available, efforts should focus on (1) the development of trypano-resistant breeds, such as the Baoule and Mere, which are potentially more productive than Zebu cattle, with the help of a special livestock research station devoted to such breeds, (2) an agrostological study designed to determine the pastoral vocation and carrying capacity of land south of the 13° parallel, (3) the possibilities of developing a feed-lot operation for the intensive fattening of cattle, and (4) efforts to integrate, slowly but progressively, agriculture and animal husbandry.

"Conditions in the South, where trypanosomiasis is a serious threat, are generally more favorable for the development of trypano-resistant breeds which account for about 35 percent of Upper Volta's cattle and which, though smaller than the Zebu, are more prolific and likely to yield more meat. A German team has investigated the possibility of establishing a ranch for the fattening of Zebu cattle southwest of Banfora in the south. It is doubtful, however, that the expense of treating Zebus against trypanosomiasis as well as the danger of bush encroachment in this area, will make such a ranch uneconomic. It may prove more worthwhile to establish a mixed ranch for the breeding and fattening of Baoule and Mere cattle.

A project proposal for the Southwest

"The possibility of a feed-lot operation is suggested by experiments with the intensive feeding of cattle that have been carried out by IEMVT (Institut d'Elevage et de Médecine Vétérinaire des Pays Tropicaux) in Senegal, Ivory Coast and Madagascar. Eventually, it might be possible to establish such an operation either near Bobo-Dioulasso or near Banfora in conjunction with a proposed scheme for the irrigated cultivation of cane sugar. However, a number of preliminary studies have to be undertaken. One of these is a study on the availability, potential cost and nutritive value of by-products which are or might be available for animal feeding, including bran from rice mills and from a flour mill in process of construction at Banfora, oilseeds and oilcake, cane tips and molasses, blood and bonemeal from the Bobo-Dioulasso abattoir and brewery dregs from the Bobo-Dioulasso brewery. A study of this kind has been undertaken at the request of FAC by IEMVT. Another requirement will be to conduct intensive feeding trials either on the Banankeledaga livestock research station or IRAT's Farako Ba research station. Finally, it will also be necessary to experiment with the growing of fodder crops (e.i. the graminaceous Bracharia raziziensis or the leguminous Stylosanthes

gracilis) which can be used to supplement the feeding with the by-products mentioned previously. If the cane sugar scheme is launched provision might be made for the cultivation of 500 hectares of fodder crops under irrigation.

Toward an association of agriculture and livestock

"Hitherto the raising of livestock and farming have been completely separate occupations. Even cattle belonging to farmers have been entrusted to pastoralists for grazing. Where animals are being used to draw implements or carts, they are usually left to forage for their own feed. Supplemental feeding is rarely practised. The use of draft animals has so far made little progress: in 1969 only about 5,560 oxen and 8,100 donkeys were used as draft animals. Yet in the South it is necessary to move slowly toward a more effective integration of farming and animal husbandry. The efforts made in this direction in the Yatenga ORD show the potentialities of such an approach even though its success in this ORD was severely restricted by unfavorable conditions. The objective should be to gradually increase the number of farms capable of supporting three oxen, two as work animals for four or five seasons and one for fattening after it has finished its service as a draft animal. To achieve this objective, it will be necessary to some extent to reorganize land holdings so as to provide separate consolidated areas for cultivation and fallow grazing, to provide for village herding of cattle, to institute essential animal health care and to develop means for supplemental feeding with fodder by-products. Progress will necessarily be very slow and will have to be based on experience with various pilot schemes that should be initiated on a village basis.

Need for better marketing of livestock

"To facilitate marketing it is essential to develop and equip livestock markets, to organize and delimit the routes along which livestock moves and to provide proper holding grounds for cattle awaiting slaughter or shipment to foreign markets. FAC has developed plans for, and will finance, two livestock routes in the eastern part of the country, converging on Ouagadougou and Puytenga. These should provide the requisite experience on which similar livestock routes could be developed for the central and western part of the country. These livestock routes should be delimited so as to avoid cultivated areas and provide in-transit grazing, should be equipped with facilities for the watering and sanitary inspection of animals and should have at their terminus appropriate holding grounds. FED is financing the construction of a new and larger abattoir at Ouagadougou, and plans exist also for the replacement or expansion of the Bobo-Dioulasso abattoir. Upper Volta hopes to expand its exports of meat at the expense of those of livestock, but the realization of this goal will largely depend on the eventual success of the efforts to develop a common market for livestock and meat among the Entente countries, Mali and Ghana.

"If Upper Volta is to make full use of its livestock, it will also have to make a serious effort to correct the existing serious deficiencies in the collection and treatment of hides and skins. For this purpose, it will be necessary to develop and properly staff a special section in the Livestock Service.

Need for coordination

"Proper coordination of all the activities in the livestock sector is urgently needed. It might well be desirable to create a Supreme Livestock Council to coordinate, in particular, the work of the Directorate for Rural Development, the Livestock Service and the Ministry of Planning. One of its functions would be to allocate responsibility for the various aspects of a livestock development program. In this connection it might be appropriate to confine the Livestock Service to disease control, collection of statistics and improvement in the treatment of hides and skins. While a special ORD for the Sahelian North is envisaged, development activities elsewhere, including the operation of livestock routes, might be entrusted to a company for the Development and Management of Livestock Resources, the establishment of which is expected to be studied with the help of FAC.

Lack of projects

"Up to the present, little foreign aid has been directed to the livestock sector, largely owing to the absence of concrete development plans. Primarily owing to the efforts of FAC, a number of basic studies have now been completed, are under way or are about to be undertaken. These should provide the basis for a much more intensive and comprehensive campaign to develop Upper Volta's livestock resources -- a campaign which the Mission believes may entail outlays of around CFAF 17 billion (about US $61 million) in the seventies. Without such a major effort there is serious danger that Upper Volta, a country with a poor natural endowment, will experience a serious deterioration of its livestock resources."

Source: Pre-Investment News
published by the United Nations Development Programme, United Nations, N.Y.
October 1971

ANNEX I

5.55

Upper Volta

Animal Power Helps Farmers

Animal power is a relatively new farming gadget in Upper Volta. So are cash earnings for most farmers. Now, under a UNDP project, young and ambitious farmers are being trained to acquire both.

Farmers comprise 90 per cent of this land-locked West African country's 5.5 million population. Until recently, most lived their entire lives without money, subsisting on whatever grains—mainly sorghum, cowpeas, maize and millet—they could harvest from the dry, clay-like soil.

Although 85 per cent of Upper Volta's land area is cultivated, it has to import nearly 40,000 tons of grains annually. Primitive agricultural techniques, coupled with scarcity of year-round water supply, have kept the country's farming at subsistence level.

Since 1963, under a two-phase FAO-executed UNDP project, farmers are being trained in improved farming and animal husbandry practices. A multi-purpose agriculture centre was established in 1968 at Bobo-Dioubasso, one of the major urban centres in the country. An agricultural college has since been set up at Matourkou, some 250 miles southwest of the country's capital, Ouagadougou.

Staffed by international agricultural experts, the College offers a four-year course in farming technology and animal husbandry and turns out 25 graduates a year. It also offers a nine-month course for rural monitors and agricultural advisers.

"Model" Village

A prototype "model" village, with square family houses, a primary school and sheds for draught beef cattle, has been set up near the College. Forty farmers in the village are being taught to sow in line and to use fertilizers, insecticides, improved seeds, as well as in the use of oxen as draught animals.

Animal traction, which was introduced in Upper Volta only in the last 25 years, is still not very common. Farmers in the village are learning that by using animal traction they can extend their family farm size from the traditional two and a half acres to six acres. Expanded farms, as well as increased productivity, already have led to a three-fold increase in the family income of these farmers, who for the first time, are earning cash.

Special emphasis is being laid on seed production in the village. It is hoped that the village, under Upper Volta's 1972-1976 Development Plan now being drafted, will be extended into a national seed multiplication centre.

Rural development operations and agricultural extension activities have also been undertaken in seven villages near Matourkou. So far, about 147 pilot demonstration farm units have been set up. By 1973, it is hoped to expand agricultural extension activities to cover 120 to 200 families in eight villages.

Young farmers, who wish to cooperate with the agricultural extension programme, attend a five-day sample course in improved methods of farming. Then, each one of them is required to clear a five-acre plot of trees, bushes and grass, using his hand tools, after which he is given on credit a team of oxen, implements, fertilizers, and seeds, etc. to the value of $600 payable over a period of five years.

3. EDUCATION

The following presentation of Upper Volta's education system is drawn from the back-to-office report of a reconnaissance mission in June 1971:

The Education and Training System

"The Voltan Government has invested heavily in the formal education system from primary schools through university. Seeing the limited value of that conventional system to meet the development needs of a rural society the Government has also begun a non-formal system of rural education centers. Since the latter system partially parallels both the primary schools and elementary vocational schools, overlapping roles have led to some misunderstanding among students and their parents. The Voltan Government must now more clearly define the future role in national development of each system.

Rural Education Centers and Primary Schools

Rural Education Centers (REC): The concept

"The rural education centers were first opened by the Government in 1961 to train village adolescents. There has been steady growth during the past decade and the number of centers is now 750 with 30,000 students. A typical rural education center recruits 40 village young people who have had no prior education and offers them a course in practical farming, functional literacy and simple arithmetic. The class recruited at about age 13, remains together for the three-year course, when a new group is recruited. The general courses are approximately equivalent to the first three years of primary school, but 50% of school time is devoted to vocational training in improved farm methods, with special courses in health and home economics for the girls. N certificate is issued at the end of the course.

"The conventional primary schools recruit pupils at age six and follow a six year general curriculum which prepare the pupils for secondary schools. Most of these schools, which enroll 110,000 pupils, are in the towns and larger villages, accentuating the rural urban differences in opportunities.

Differences with conventional education

" The primary schools and the rural education centers differ in a number of ways:

- the curriculum of the rural education centers has a definite vocational aspect, 50% of the time being devoted to practical agriculture, while traditional primary schools lead to a certificate and a chance to enter secondary school;
- most primary schools are concentrated in urban areas (the national age-group enrollment rate is 10% as against 65% in urban areas);
- a primary school teacher, having completed the lower cycle of secondary school plus one year of vocational training, costs the Government about US$1,800 a year, i.e. about 30 times the GDP per capita, while a rural center teacher, with a lower level of educational attainment (primary school plus some special training) is not a civil servant and costs less than half of this amount;

- the cost per pupil-year in rural centers is 5,000 CFA francs as against about 12,000 CFAF in primary schools. (In this regard, one of the objectives of the Government - to set up a new system of schooling, cheaper than the traditional primary system - has been reached);

- 66% of the 1969 education budget was spent on primary education, as against 8.2% on rural education, yet enrollments are respectively 110,000 and 30,000.

Poor practical results

"The development of rural education centers over the past 10 years has no doubt been the most innovative feature of the Upper Volta school system and a genuine attempt to prepare village youth for a better and more productive rural life. In practice, however, the rural education centers have failed to yield the expected results. Except for the girls, the graduates of the centers have not been effectively integrated into farming. For lack of proper extension services and bank credits for farm tools, many of the young men have preferred to leave the village and work on Ivory Coast plantations. The quality of instruction is often very poor where teachers are inadequately trained and insufficiently supervised. The curriculum also needs to be more flexible to meet the specific development needs of each region. And, above all, a follow-up program is needed to help the "graduates" start farming.

Pressures to reduce special character of R.E.C.

"Upper Volta educational authorities feel they need to bring the traditional primary and rural education systems in "harmony". This means that either traditional primary schools will become more vocationally oriented by adding some agricultural courses to their curriculum, or rural schools will have to diminish the vocational character of their teaching. The reactions from the various social groups make the second alternative much more likely to occur:

"For parents in rural areas, harmonization means that rural schools will no longer be a "second best" solution for their children, because they will resemble city schools.

"For teachers of rural centers, harmonization of both systems means that they will get the same benefits as primary school teachers: higher pay and civil servant status.

"For most Voltan educators, to harmonize the systems would mean "to raise the quality" of rural schooling. To them this is equivalent to getting rid of the vocational content of rural education and devoting more time to traditional education.

"For pupils, coordination of rural centers and primary schools would keep them in hopes for an urban-type education, a job in the civil service, and life in the city.

Voltan educational authorities are thus facing a major choice of educational strategy. Are they willing to maintain the vocational character of their rural education centers in spite of the strong pressures favoring a return to the traditional schools? It is evident that the Government will need to broaden the base of opportunities. It is equally clear that the country does not need more graduates from schools with a classic curriculum.

Secondary Education

Poor efficiency of conventional secondary schools

"There are 30 secondary schools in Upper Volta of which seven offer courses through the senior level. The curriculum is restricted to the arts and sciences leading to university and other post-secondary studies. Most of the 10,000 secondary students drop out or leave the schools after obtaining a junior secondary certificate. Over 300 students successfully completed senior secondary studies in 1971, though at most only 150 per year can be given higher training and expect to find employment. The Government is planning to broaden the secondary curriculum to include a technology course which would introduce all students to more practical knowledge of machines and technical processes.

Higher Education

Increasing enrollment in higher education

"The Government has been operating a center for Higher Education in Ouagadougou since 1968. The center offers a two-year post secondary course in preparation for teaching in the junior secondary schools. Graduates from this course will replace expatriate teachers both in the arts and sciences. The center also plans to open a technology section to train senior technicians in specialized fields. This decision seems questionable since the very high cost of post-secondary technical education cannot justify the training of a few specialists. Upper Volta plans to cooperate with Niger in establishing a junior science faculty at Niamey. However, it will continue to develop its own literary section whose graduates will serve no urgent need. Enrollments at the Center for Higher Studies are increasing without regard for priorities and are expected to go from the present 250 to 800 students by 1976.

Technical Education and Vocational Training

Limited facilities for technical education

"The technical lycee in Ouagadougou is the only institution that offers a complete secondary technical course. The curriculum is not well adapted to Voltan needs, though the theoretical part of the course is well taught by qualified expatriate teachers. There are too many narrow disciplines, and the pupils-teacher ratio is inefficient. Buildings and equipment are not fully utilized and yet the European Development Fund has accepted to finance the construction and equipping of a new technical lycee.

"The outlook for vocational training has been much improved by the opening of a new school staffed by Austrian teachers. Entrants must have the Primary School Certificate (CEP) and sit for an exam. After five years of schooling they receive a "Brevet de Technicien" equivalent to skilled craftsman competency. Training is given in general mechanics, auto mechanics,

electricity and electronics. The school will enroll 200 pupils (all on a full-boarding basis) and will produce 30 skilled workmen each year. Austrian aid agencies are committed to supply teaching personnel for a ten-year period.

"Vocation training for adults is carried out by:

"ILO for the training of semi-skilled craftsmen and office clerks and typists. Three more ILO training centers are planned.

"Public agencies provide specialized training in certain fields, such as: the training of electricians by Voltelec, the training of auto mechanics by the Public Works Services, and of agricultural agents by the Agriculture Center at Matourkou and by the regional development offices. Vocational training programs are good and meet the priority needs of the skilled labor market.

Education Research

Research is important

"The National Pedagogy Center in Ouagadougou is responsible for collecting and analysing education data, revision of primary and secondary curricula, in-service training of primary teachers, and production of teaching materials. It is now also undertaking the production of radio programs for use in primary schools. The Pedagogy Center will play an important role in developing reforms of the formal education system.

External Aid

Aid from Europe only

"French foreign aid (FAC) is the largest contributor of personnel and funds for the education sector. It supplies most of the teachers for the secondary and post-secondary schools and the research staff at the Pedagogy Center. It also supplies half the operating budgets of the Center for Higher Studies and the Pedagogy Center. The European Development Fund (FED) built 225 rural education centers and will shortly finance construction of a new technical lycee. Austria is building and will staff for ten years a new vocational training school. Germany will finance equipment to produce the educational radio programs."

TRANSPORTATION

5.71

4. TRANSPORTATION

Upper Volta has been receiving a great deal of assistance from FAC and FED in this sector, and our judgment remains basically that expressed in the following paragraph of our Country Program Paper dated May 13, 1970:

"By and large, major investments in transport infrastructure do not appear to be needed. The country is reasonably provided with main roads, particularly if certain projects scheduled for FED financing are completed. However, there is a need to finance equipment for the maintenance of roads as well as the construction of two new roads in the cotton areas. Apart from this, the principal requirements are for the improvement of local road links within the existing ORD's and eventually, as already indicated, for some penetration roads into Fada N'Gourma."

6. - FOREIGN AID

Composition of foreign aid

In the past, foreign aid has been extended chiefly on a grant basis. About 90 percent of total external aid commitments in 1967-68 represented grants. The average concessionary elements of the entire assistance program - cpmputed on the basis of a conventional 10 percent discount rate - was about 95 percent. These figures reflect donors' conviction that Upper Volta's extremely low level of development requires the softest terms possible. As the attached table indicates, total annual aid disbursements averaged CFAF 6.1 billion (US $22 million) during the period 1964-69. France and FED remained by far the principal suppliers of external funds, accounting for 56 percent and 23 percent respectively of total aid. Other major donors include the USA (4 percent), Germany (3 percent) and international organizations, mainly UNDP and IBRD (five percent). Somewhat more than half of total assistance was capital assistance and one-fourth was extended for technical assistance projects.

French aid

French aid is diversified. In 1970, out of total of CFAF 1,146 million, 240 million were allocated to cotton development in the West, 210 million to road maintenance equipment, 122 million to the setting up of Regional Development Offices in Ouagadougou and Koundougou, etc. In 1971, 255 million went to the same ORDs, 210 million to the building up of a hertzian link with the Ivory Coast, etc. In 1972, FAC-financed investments will amount to CFAF 1 billion, including 200 million for agriculture, 250 million for road maintenance, 200 million for education, 200 million for the radio and telephone systems. In addition to that, France provides non-project aid to the investment budget in an annual amount of CFAF 500 million. Loans from the "Caisse Centrale de Coopération Economique" (CCCE) amounted to a total of CFAF 842 million from 1966 to 1969. On January 1, 1970, technical assistance was given by 477 Frenchmen, including 262 teachers.

FED aid

The contributions made by the first two FED amounted to a total of CFAF 14 billion (about US $55 million), of which about 32 percent for water control and 28 percent for public works. The main projects under the second FED were: the upgrading of the Ouagadougou-Po (Ghana border) road (US $8.3 million), of the Ouagadougou-Koupela road (US $3.3 million), and of the Bobo-Dioulasso-Faramana road (US $4.3 million), the improvement of water supply in Ouagadougou (US $2.9 million), the development of the Yatenga area (US $1 million), the fight against onchocerciasis in the Southwest (US $0.4 million), water and electricity supply in Koudougou (US $1.4 million), the development of the Southwest (US $1.3 million), seed treatment and crop conservation (US $1.0 million), the slaughtering house in Ouagadougou (US $2.1 million). Projects already approved under the third FED are: water supply in Bobo-Dioulasso (US $2.1 million), supplementary allocations for the Ouagadougou-Po and Ouagadougou-Koupela roads (US $1.4 and 1.6 million), disaster aid (US $1.8 million), etc.

Other aid

The World Food Program has provided US $0.5 million for the feeding of hospital patients, US $1.7 million for the feeding of secondary school students, US $0.5 million for the building of dams and wells, and US $2.2 million for the settlement of 1,800 families in the Kou valley.

UPPER VOLTA - FOREIGN AID DISBURSEMENTS 1964-69 1/

	1964	1965	1966	1967	1968	1969	Total 1964-1969 CFAF billion	%
1. Technical Assistance	1.12	1.25	1.43	1.39	1.59	1.88	8.66	24
1.1 France	.87	.82	.90	1.10	1.19	1.22	6.10	17
1.2 FED	.16	.18	.26	.07	.05	.17	.89	2
1.3 Others	.09	.25	.27	.22	.35	.49	1.67	5
2. Capital Aid	2.33	3.27	3.38	3.71	3.41	4.05	20.15	55
2.1 France	1.12	1.63	1.40	1.88	1.56	1.30	8.89	24
2.2 FED	.93	1.28	1.41	.65	1.21	2.06	7.54	21
2.3 USA	.09	.07	.18	.17	.15	.08	.74	2
2.4 Germany	.07	.07	.10	.65	.04	.02	.95	3
2.5 Taiwan			.04	.03	.05	.15	.27	1
2.6 International Organizations	.09	.15	.18	.24	.19	.27	1.12	3
2.7 Others	.03	.07	.07	.09	.21	.17	.64	2
3. Other Aid 2/	.87	1.04	1.12	1.77	1.78	1.16	7.74	21
3.1 France	.74	.97	.92	.91	1.01	.85	5.40	15
3.2 USA	.01		.11	.63	.12	.01	.88	2
3.3 Germany				.01		.03	.04	
3.4 International Organizations				.10	.52		.62	2
3.5 Others	.12	.07	.09	.12	.13	.27	.80	2
4. Total	4.32	5.56	5.93	6.87	6.78	7.09	36.55	100
4.1 France	2.73	3.42	3.22	3.89	3.76	3.37	20.39	56
4.2 FED	1.09	1.46	1.67	.72	1.26	2.23	8.43	23
4.3 USA	.10	.07	.29	.80	.27	.09	1.62	4
4.4 Germany	.07	.07	.10	.66	.04	.05	.99	3
4.5 Taiwan			.04	.03	.05	.15	.27	1
4.6 International Organizations	.09	.15	.18	.34	.71	.27	1.74	5
4.7 Others	.24	.39	.43	.43	.69	.93	3.11	8

1/ CFAF billion.
2/ on a commitment basis.

Source: Ministry of Planning, Mining and Industry.

6.02

7. - PAST BANK OPERATIONS

A. US $0.8 million Telecommunications Project of February 19, 1969

Project Data:	Amount disbursed	Sep. 30, 1971	US $15,000
	Amount committed	Sep. 30, 1971	US $20,200
	Effective date		June 30, 1969
	Closing date		June 30, 1972
	Date of last supervision mission		February 1970

Project summary

The project forms part of OPT's 1969-72 program for the expansion and rehabilitation of telecommunications in Upper Volta, and provides for the construction of modern local telephone networks in the two main cities, Ouagadougou and Bobo Dioulasso, and for rebuilding and reconditioning of open wire interurban lines and office installations in order to improve the overall telephone and telegraph services.

Project execution satisfactory

Owing to the difficulties experienced in recruiting and having available on site the senior expatriate staff required to head OPT's technical and financial departments, the start of execution of the project was delayed by about one year. The project is now being carried out normally. The revised construction schedule provides for completion of the project by early 1973, about one year later than initially scheduled. OPT intends to request an extension of the closing date of the Credit, once the principal contracts have been finalized.

Continuing program

OPT has recently commenced a supplementary program providing for an extension of 500 lines to the main automatic exchange in Ouagadougou (present capacity 1,000 lines) and the construction of a microwave link between Ouagadougou and the Ivory Coast border covering a distance of 500 kms. These works are estimated to cost about US $2.0 million equivalent; 83 percent will be financed from French Bilateral Assistance sources and the rest from OPT's own resources. The supplementary program was reviewed and approved by IDA in March 1971. The additional telephone lines should be available by middle 1972, and construction of the link should be completed by the end of 1973. OPT will continue to have adequate outside assistance to implement it. OPT now proposes to construct a main building in Ouagadougou for completion in 1974 to accommodate all OPT's future technical installations in the capital and its head office. Adequate finances for the project would be available from OPT's own resources.

OPT's operations, both telecommunications and postal in 1970, as in 1969, were satisfactory. A quick review of OPT's finances to 1976 shows financial capacity for a further development program, construction for which would commence about 1974.

Future program

OPT's future development program from 1974 onwards has been studied by an ITU expert who stayed in Upper Volta from June 1970 to April 1971. Future investment plans in the sector for construction by 1978 could be provisionally estimated at about US $4 million

equivalent. The content, size and construction period for the next program for which the Government is likely to submit an application for an IDA credit will be drawn up after the ITU report has been finalized and studied by the Government and the OPT. This should be available in 1972.

Next mission

The next supervision mission to Upper Volta is scheduled about May/June 1972.

B. US $6.2 million (West Volta Cotton) Project of December 30, 1970

Cotton in Upper Volta and the scope of the project

Cotton production developed slowly until 1965/66, when it reached 7,500 tons of seed cotton. Growth then became faster as a result of CFDT's action, largely financed by the French Government. In 1969/70, production had jumped to 36,250 tons. Foreign sales of lint and cotton seed represented 8.3 percent of total exports in 1965 and 19.6 percent in 1968, which gives them an ever stronger second place among Upper Volta's exports after livestock. Increasing production through expanding growing areas and improving productivity appears possible; increased exports will have a negligible impact on the world market, but farmers' incomes and the country's foreign exchange earnings will be strengthened considerably. This is the aim of the project, which encompasses most of the area presently covered by CFDT's action in the Western part of the country, extends over the years 1971-75, and will benefit about 46,000 families.

The project consists of both expanding the area under cotton and improving productivity. These objectives are to be achieved through strengthening extension and credit services, providing additional processing facilities, and rehabilitating feeder roads linking cotton fields with local markets.

Project costs

The project as a whole was estimated to cost about US $9.4 million. (All dollar equivalents were, of course, calculated before the realignment of currencies. They would now have to be readjusted). It involves the recruitment of about 100 additional staff members of various grades; salaries will amount to about US $3.4 million and other costs of extension services to about US $1.8 million. Incremental credit requirements for fertilizers, insecticides and agricultural equipment have been estimated at about US $1.5 million. Construction of the ginnery is budgeted at about US $1.0 million. The cost of the road rehabilitation program will amount to about US $1.2 million. An amount of US $240,000 is allocated to feasibility studies. The French Government has agreed in principle to contribute through FAC and CCCE a total amount of about US $1,750,000. The Government of Upper Volta for its part will contribute an amount equivalent to about US $1.15 million and the Voltaic farmers contribute about US $0.3 million. The French Government and the Association have agreed to exchange information about the progress of the project.

Expected benefits

Average yield, which presently is 431 kg/ha nationally and 620 kg/ha in the project area, is expected to increase in the project area to 868 kg/ha in 1975. Farmers' annual net cash incomes will rise by stages from a range between CFAF 5,000 to 10,000 per annum, which is common for those using traditional farming techniques, to a range between 63,000 and 80,000 for those who

take full benefit of the project. Net export earnings are expected to increase by US $4.4 million, or about 16-18 percent of the 1969 export earnings, by 1975. The economic rate of return of the project is estimated at 30 percent. This is very satisfactory for a country like Upper Volta, where rates of return cannot normally be expected to be very high, and is due to the fact that the cost of long years of developmental activity prior to the project has not been capitalized, while such activity has created conditions under which incremental inputs bring about a large net increase in output. It usually takes about three years of extension efforts to get an individual farmer's full participation in such a program and about ten years to obtain substantial results in the area. It is felt, however, that, even over a period which would include the initial years of development, a satisfactory rate of return would still be obtained.

Project organization

The Minister of Agriculture is responsible for the execution of the project and presides over a Project Coordinating Committee which will be composed of high-level representatives of the relevant ministries and the BND. Under a contract with the Government, CFDT has undertaken to:

- provide a Project Director of Voltaic nationality and the required number of expatriate personnel;
- prepare a program of replacement of expatriates by local personnel;
- procure the fertilizers, insecticides and agricultural equipment required by the cotton farmers;
- plan and design the ginnery to be constructed under the project, and supervise its construction;
- establish and carry out annual programs for the rehabilitation of tertiary roads.

CFDT is a French non-profit statutory body (Société Anonyme d'Economie Mixte), established in 1949 and financed mainly by the French Government, with headquarters in Paris and a regional office for four countries in the Upper Volta, in Bobo-Dioulasso. Its activities encompass extension services for crop production, construction, operation and management of ginneries, and consulting services.

Ginning and marketing of cotton

CFDT is continuing to collect seed cotton from local markets, process it and export lint. The "Caisse de Stabilisation des Prix des Produits" (CSPP) will continue to market cotton seed. The Government is continuing to fix the producer price annually. However, new arrangements have been made as regards ginning and exports. The Government and CFDT have entered into a joint venture agreement and have agreed to amendments proposed by IDA. Each party to this

contract has undertaken to put at the disposal of the joint venture all its industrial and commercial installations related to cotton development in Upper Volta. The joint venture is managed by CFDT, which will receive a fixed remuneration for each ton of cotton handled. Profits are shared between the Government and CFDT in the ratio 4:1. Losses, which might result from the Government having set the producer price too high, will be borne by CSPP alone. CFDT profits are reinvested in Upper Volta.

Extension services

Extension services and credit are being brought to the farmers by two Regional Development Bodies (Organismes Régionaux de Développement), one with headquarters in Dedougou and one in Bobo-Dioulasso. ORDs are Government agencies often managed by foreign development agencies, such as CFDT, BDPA, SATEC (France) and SOTESA (Italy).

Financial channels

All project funds, except those for the studies to be carried out by consultants (see below), are handled by "Banque Nationale de Développement" (BND). BND was established by the Government in 1961 with a majority Government participation in its capital and management. It provides credit and technical assistance for all projects conducive to Upper Volta's economic and social development. It receives technical assistance from the French "Caisse Centrale de Coopération Economique" (CCCE). As and when disbursements are made for the purchase of insecticides, fertilizers, and agricultural equipment, the Government is making counterpart contributions to BND in the form of equity; BND in turn has set up a revolving fund for lending to the project area ORDs, which are responsible for seasonal and medium term credits to the farmers. For the construction of the ginnery, the Government will lend the required amount to BND, which will on-lend it to CSPP. For salaries and operating expenditures, BND receives quarterly advances from the Government.

Credit procedures

Existing agricultural credit arrangements through the ORDs in the project area have produced an excellent repayment record. They are to be continued.

Cotton exports and their benefits

Cotton exports are made at world market prices, but growers are paid a price determined annually by the Government, and CSPP appropriates the excess, or provides the necessary support, as the case mey be. In recent years, cotton operations yielded a deficit, which was offset by surpluses on other crops such as sesame and sheanuts, but the French devaluation of August 11, 1969 changed the situation and cotton is not expected to yield a surplus. CSPP's cash flow projection is therefore quite satisfactory at the moment. Under the project, a separate cotton account has been established. Surpluses in this account are expected to shrink gradually until they turn into a deficit around 1975 due to cost increases and to an expected decline in world market prices. It is felt that the present producer price is to be maintained as long as there are reserves in the cotton account of CSPP. This will serve as an inducement for farmers to start cotton cultivation. The producer price

will be reviewed annually and reduced when forecasts indicate that reserves in the cotton account are likely to be depleted.

Need for continued research

Cotton research and seed multiplication, which are essential for the success of the project, are continuing to be conducted on a national scale by Institut de Recherches du Coton et des Textiles Exotiques (IRCT) under equally shared financing by the Governments of Upper Volta and France. In addition, it has become indispensable for the full success of the project to conduct research into a virus disease (phyllody) which appeared in 1968 and is estimated to have caused a yield reduction of about six percent in 1969. The Government has undertaken in Section 3.12 (b) of the Credit Agreement to carry out an intensive research program on phyllody and has presented a request to UNDP for appropriate financing; the Association has indicated to UNDP its support for this request.

Road component

A handicap for Upper Volta's cotton economy is the poor condition of tertiary roads, i.e. trails and single lane tracks from cotton fields to village markets and cotton stocking sites, and of secondary roads linking villages with primary roads and ginneries. The rehabilitation of 820 km of tertiary roads will increase the benefits of the project. Similar benefits are expected from the improvement of the two most important secondary roads in the project area, Koundougou-Solenzo-Nouna and Hounde-Bereba, the detailed engineering of which will be financed under the proposed project.

Procurement

All additional personnel is being provided by CFDT or the Government of Upper Volta. Equipment for the ginnery, fertilizer, pesticides, agricultural equipment and road maintenance equipment will be procured on the basis of international competitive bidding. Tenders for office furniture and equipment, vehicles and construction of houses, stores and offices, amounting in total to about US $0.7 million, are too small to be of interest to foreign bidders and will be let locally. Local tendering procedures are satisfactory. The selection of consultants for the two studies will be made according to standard Bank procedures.

Financing arrangements

Foreign exchange requirements were estimated to US $5.3 million, or 56 percent of the total project cost of US $9.4 million. Since CCCE will finance about US $0.2 million of imported agricultural equipment, the Association agreed to finance about US $5.1 million of foreign costs and US $1.1 million of local costs. This degree of local cost financing was considered justified by the very limited capacity of the country to generate savings.

Execution

Execution of the project is generally satisfactory, despite some confusion at the beginning with respect to the attributions of the Project Manager.

Last Economic Mission

November - December 1969 Attachment 2

UPPER VOLTA

SELECTED INDICATORS OF DEVELOPMENT[1/]

I. ECONOMIC AND STRUCTURAL INDICATORS

- Imports of goods (recorded):	% change per annum	8.7 (65/66 - 69/70)
- Exports of goods (recorded):	% change per annum	7.9 (65/66 - 69/70)
- Consumer price index (African family):	% change per annum	4.0 (1958/1970)
- Consumer price index (European family):	% change per annum	3.6 (1964/1970)
- Debt service:	% of recorded merchandise exports	3.4 (1965) 8.77 (1969)
- Central Government Current Revenue:	% GDP	13.8 (1966)
- Manufacturing (& handicraft):	% GDP	5.5 (1966)
- Energy consumption:	mil. kwh	16.2 (1965) 21.2 (1969)

II. SOCIAL INDICATORS

- Population growth rate:	%	2.0
- School enrollment (Primary and Secondary):	%	8.0 (1967/68)
- Literacy rate:	%	1.0 (1960/61)

See footnote on page 2.

1/ These are rough estimates based on the very limited statistical information available for this country. The last economic mission presented the following "indicators of economic progress" (Report AW-19a, Nov. 1970, p. 7):

	Average 1965 & 1966	Average 1968 & 1969	Annual Growth Rate (%)
Volume of agricultural products marketed ('000 tons)			
Seed cotton	8.25	24.65	44.0
Groundnuts (shelled)	7.25	10.35	12.6
Sesame	2.15	2.80	9.2
Sheanuts	10.15	17.50	15.0
Exports (billions of CFAF) f.o.b.	3.83	5.31	11.4
Imports (billions of CFAF) c.i.f.	9.23	11.49	7.3
Net foreign assets (billions of CFAF) a/	2.60	5.94	23.0
Government budget savings (millions of CFAF) b/	134	959	92.0
Net government claims on the banking sector (billions of CFAF)	-0.13	+2.24	-

a/ Figures are for end 1965 and 1969.
b/ Figures are for 1966 and 1969 (estimated) respectively. Debt amortization is included in budget savings.

8. - FUTURE BANK OPERATIONS

A. AGRICULTURE

Three types of operations are envisaged for Upper Volta's agriculture: further development of cash crops (especially cotton), indirect financing of small rural sub-projects, and resettlement of areas now deserted for sanitary or other reasons. The following are the projects under preparation:

Rural Development Fund: This project has been appraised in August 1971 and the yellow cover version of the appraisal report is presently under review. Given the importance of this project for the development of Upper Volta, we provide you with a full description, followed by some remarks (attachment). We hope to be able to negotiate the project in April.

Cotton: Within the framework of the on-going cotton project, a study is about to start and should lead in FY 74 to a further cotton and food crops project in an area adjacent to the present cotton project. A US $3.0 million credit is envisaged. A third project of US $4 million has been tentatively scheduled for 1977.

Regional Development: The WHO mission, now in the field to prepare the campaign against onchocerciasis is also identifying areas which appear suitable for redevelopment after measures are taken for the control of onchocerciasis. The White Volta River Valley project would follow the start of the campaign against onchocerciasis (US $5.0 million in FY 75). FAC has provided a team of experts to prepare it. Our Permanent Mission in Western Africa is cooperating with the WHO mission for the identification of further development projects in Upper Volta and adjacent countries and for the drafting of terms of reference for the necessary feasibility studies. Attached are a detailed description of the anti-onchocerciasis project, written in 1970 by Mr. John C. de Wilde, and extracts from a report dated January 18, 1972 from our PMWA about areas to be developed after onchocerciasis control in Upper Volta.

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THE CAMPAIGN AGAINST ONCHOCERCIASIS IN WEST AFRICA

Memorandum by John C. de Wilde

I. Introduction

1. Onchocerciasis or "river blindness" is an endemic disease widely prevalent in West Africa which is transmitted by the female species of a fly, Simulium damnosum. This fly breeds in the foamy water of streams where there is enough oxygen and food for the survival of the larvae. As in the case of malaria, the disease is transmitted only after the vector has bitten a person already infected. In biting an infected person the fly ingests the microfilarial parasites which cause the disease. These, after undergoing several transformations, migrate to the proboscis of the fly which may then transmit them by biting an uninfected person. The adult worms (Onchocercosa volvulus) injected by the bite form nodules in the subcutaneous tissues where they produce successive generations of microfilarial parasites which migrate through the small lymphatic vessels in the bloodstream and at times congregate in the eyeball and optic nerve where they bring about pathological changes that result in diminished vision and eventual blindness. In addition, they are reported to contribute to various lymphatic disorders, including elephantiasis.

2. The most serious economic consequence of the disease is the abandonment or failure to utilize cultivable land in valley areas where the disease has become endemic. This has in a number of cases aggravated demographic pressures in adjoining areas such as the Korhogo area in northern Ivory Coast, the Navrongo, Zuarungu and Bawku districts of Ghana and regions near the White Volta River Valley in Upper Volta.

3. Although the fly can be found in large numbers both in the forest and savanna zones, onchocerciasis in its virulent form is for some reason confined to the savanna region (latitude 6°-12°N). It should be noted, however, that the fly is a great nuisance wherever it is found, for its bites even though non-infecting cause severe itching leading to loss of sleep and continuous scratching which may itself produce infection.

4. Onchocerciasis is endemic over large areas of Upper Volta, Ghana, Niger, Mali, Guinea, Senegal, Togo, Dahomey, and the Ivory Coast. A special conference held in Tunis in July 1966 under the sponsorship of USAID and WHO proposed that a campaign against the disease be undertaken in a project area embracing parts of the Ivory Coast, Mali, Upper Volta, Ghana, Togo, Dahomey and Niger. The salient facts on this "project area" are the following:

Total area	206,000 km2
Population	3,020,000
Number of people infected	over 600,000
Number of serious cases	at least 50,000 (22,000 blind)
Uninhabited cultivable area	1,090,000 ha

This area was selected not only because the disease is extremely serious there, but also because knowledge concerning the ecology of the vector and possible methods of control was comparatively good. All of Guinea and Senegal and a part of the infected area in Mali were excluded because available information on the disease and the vector was much less adequate. 1/

II. Possible Methods of Attack

5. In principle it is possible to interrupt the cycle of infection by (a) effectively treating people having the disease, and (b) eradicating the fly which is the vector. Several methods of treatment designed to attack both the macrofilarial and microfilarial forms of the parasite have been tried, but although experiments with various drugs are continuing it appears unlikely that effective and economic methods of treating the disease in the human host will be found in the immediate years to come. Much more promising are the possibilities of eradicating or at least substantially reducing the vector through an attack on its breeding sites.

6. The breeding sites can either be submerged or treated with an insecticide which will kill the larvae. Submersion of the breeding sites through the construction of dams is possible in a number of areas. Thus the building of the Kossou dam in the Bandama River in the Ivory Coast will, as an incidental by-product, flood a large number of breeding sites upstream. Similarly it is claimed that the construction of two dams on the Goroubi and Diamangou Rivers in Niger would eliminate the

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1/ Among the more important centres of infestation excluded from the project area are (1) the Bougouni area in Mali (the Banifing and Baoulé Valleys) where the infestation is reported to be more serious than in the Farako area of Sikasso, (2) the Kayes and Bafoulabe region of the Senegal basin in Mali, and (3) the Fouta Djalon region of Guinea. The extent of the prevalence of the fly and of onchocerciasis in Senegal and Mauritania appears to be largely unknown.

breeding sites in the most seriously infested region of that country. It is very doubtful, however, that the eradication of the fly would ever by itself justify the construction of dams. Moreover, the experience in Upper Volta has shown that the construction of dams can give rise to new breeding sites in the flood waters discharged from the reservoirs.

7. The treatment of breeding sites with insecticides appears to be the most effective. As early as 1947 a similar fly (Simulium neevi) was effectively eradicated in the Koderi district of Kenya by a larvacidal campaign. Successful anti-fly campaigns are reported to have been conducted also in part of the (then) Belgian Congo (1946-51) and on the Nile River (1955). In West Africa considerable success has been achieved in the treatment of breeding sites in a limited area with financing supplied at first by the French government and later, on a somewhat larger scale, by FED. This campaign was planned and directed by the OCCGE (Organisation de Coordination et de Cooperation pour la Lutte contre les Grandes Endemies) which has done much of the original basic research work on the disease and its vector and includes among its members Upper Volta, Mali, Senegal, Mauritania, Niger, the Ivory Coast, Dahomey, and Togo. FAC made available CFAF 197 million for the treatment of breeding sites in the Sikasso area of southeastern Mali over the period 1961-64. In 1966 FED agreed to finance an OCCGE campaign focusing on adjoining areas of Mali, Upper Volta and the Ivory Coast. These include: (1) in the Ivory Coast, the Senoufo area of Korhogo, the forest area of Tiassalé and the Upper and Lower Bandama River valleys; in Mali, the Sikasso (Farako) area; and in Upper Volta, the Comoë and Leraba River valleys. The project was extended in 1968 to the end of 1970, although presumably some treatment will have to be continued beyond that date in order to prevent reinfestation by flies from adjoining areas which have not been treated. A total sum of CFAF 334 million has been made available for this campaign under two FED conventions. The results of the campaign have been gratifying. The vector is reported to have been reduced by 90-99%.

8. Up to the present the larvacide used has been DDT. Although the dosage required is rather small, there has been some fear that DDT because of its persistence in the food chain might accumulate to injurious levels in fish and other vertebrates. It is therefore important to note that another compound, methoxychlor, which is far less persistent and unlikely to accumulate to toxic levels, can also be used. In recent years methoxychlor has replaced DDT in fly control programs carried out in Canada and the United States; and both DDT and methoxychlor were used in a small pilot spraying program in Ghana during 1969. 1/

9. A successful treatment program must fulfil a number of conditions:

(a) There must be a complete inventory of breeding sites.

1/ WHO has now decided that DDT will not be used in the large regional project, but no decision has been made as to which other chemical product will be used.

(b) The points where the larvacide is applied must be determined taking into account the distribution of breeding sites, the type of water course and the annual variations in discharge.

(c) The frequency of treatment must be gauged in accordance with the duration of the larval stage of the fly.

(d) Treatments must be spanned in each season over a period somewhat longer than the life of the fly.

(e) The effectiveness of the larvacidal treatment must be verified on the spot.

(f) Since the macrofilarial parasites in the human host continue to spawn successive generations of microfilarial parasites over a period as long as 10-15 years, care must be taken to keep the fly virtually eradicated over an equally long period in order to break effectively the cycle by which the disease is transmitted.

(g) Larvacidal treatment must extend over a sufficiently large area to prevent significant re-infestation from non-treated areas. The fly is said to have a range of up to 160 kilometers, although the mature female fly, which is likely to be infested, apparently has a much smaller radius of activity.

III. Elaboration of a Project

10. There is as yet no well worked out project for combating onchocerciasis or for resettling land that would be opened up by an effective campaign against the disease. Neither the costs nor the benefits of such a project are known. While the application of any strict cost:benefit yardstick to the project is sometimes deprecated on the ground that this ignores humanitarian considerations, it must be recognized that there are many claims on the limited resources that the African Governments concerned can mobilize at home and abroad. Thus any substantial expenditure on the fight against onchocerciasis should not be undertaken without a fairly careful appraisal of the benefits that would ensue. Moreover, development agencies like the Bank Group which extend loans or credits will want to make sure that the rate of return is acceptable, at least for the component or components of the global project that they may be called upon to finance.

11. In the rest of this paper an attempt will be made to indicate what is known at present about the cost, dimension and nature of a possible international campaign against the vector and about the benefits that might accrue and the methods of realizing them. This will help

to determine what additional steps must be taken before a concrete project can be formulated and proposed for financing.

The larvacidal campaign

12. What do we know about the dimensions of such a campaign, the methods of carrying it out, its cost and duration?

13. Since the fly has a considerable range of flight and is no respecter of frontiers, it is agreed that the campaign against the vector must be international in scope and on a scale sufficient to prevent significant re-infestation from breeding sites in areas outside the zone of treatment. It has already been noted that the FED-financed pilot project was launched on an international basis, although not for an area sufficiently large to obviate the danger of re-infestation. In general the "project area" defined by the Tunis Conference is large enough to minimize this danger. and by the inclusion of Niger, where the center of infestation is remote from others, may even have gone beyond the minimum scope necessary.

14. The cost of a larvacidal campaign in the Tunis project area was originally estimated by the Tunis Conference at $2,512,000 per year or approximately $25 million for a period of 10 years (after which presumably some maintenance treatment would be continued, where necessary, by the individual countries concerned). However, at a subsequent regional WHO Conference in Brazzaville an estimate of $45 million for the ten-year period was given. Actually there appears to be little basis for either of these widely varying estimates.

15. The cost of the campaign will be a function of the number and distribution of breeding sites, the methods of treatment that are eventually adopted, and, presumably, the effectiveness of the treatment, particularly in the first few years, in reducing the vector.

16. Thanks to the efforts of the OCCGE and, more recently, of WHO, the breeding sites of the fly have been mapped over most of the Tunis project area. There are, however, still a few gaps in this information, particularly with reference to Togo. Provision for the necessary surveys in that country is in principle included in WHO's AFRO 131 project which was initiated in 1966 with UNDP financing and extends to the White and Red Volta River Valleys in Ghana and Upper Volta as well as to northern Togo. In fact, little appears to have been done so far in Togo. In addition, the breeding sites in Dahomey and Niger have not been completely mapped and in Upper Volta the Black Volta River still needs to be surveyed. It is important at this stage to determine what work must still be done in this respect and to fix a time schedule for its completion.

17. One factor in the cost of a larvacidal campaign is the number of breeding sites that will have to be treated. Breeding sites can be divided into two categories: those which exist the year-around (perennial), and those

which exist only during the rainy season (seasonal). The extent to which seasonal as well as perennial sites will have to be treated has apparently not been clearly established. It has been suggested, for example, that in the White and Red Volta River basins it would suffice to treat the perennial sites in Ghana, since the treatment of such sites would prevent the migration of flies to the wet-season breeding sites in Upper Volta. However, there appears to be no clear-cut consensus on this point.

18. The methods of treatment are the most critical determinant of the cost. The rather high cost estimates cited above are due, above all, to the assumption that both the treatment and the verification of the efficacy of the treatment require physical access to the breeding sites by vehicles and personnel. The FED-financed pilot project involves treatment and verification on the grounds. Since the breeding sites are scattered and often extremely difficult of access on the ground, this entails many hours of travel by jeep or landrover and increases the number and cost of highly-paid personnel, particularly entomologists. It is therefore extremely important to determine to what extent and at what cost aerial spraying, which has been widely adopted for fly control in the United States and Canada, can be used. In November 1969 a small pilot spraying project was carried out in Ghana under the auspices of a WHO team and with financing by the German Government. Although the plane used (a Ghana Air Force Beaver DC2) was far from ideal for this purpose, this trial did demonstrate the potential savings that might be achieved by aerial spraying. It showed that all of the dry-season breeding sites of the White Volta River basin encompassing about 10,000 square miles could be treated even by a slow plane in 5 1/2 hours, whereas the weekly treatment of these sites using hand application methods would require 5 teams of 6 men, each with a landrover. However, this limited trial provided no basis for estimating the cost of an aerial spraying campaign covering the whole of the Tunis project area. Moreover, there is still the problem of verifying the efficacy of the treatment on the spot. It has been suggested that this could be greatly facilitated through the use of helicopters. Mention should also be made of the possibility of using aircraft to detect and map breeding sites.

19. While Dr. Le Berre of OCCGE is currently making a more considered and detailed estimate of the cost of a larvacidal campaign using the traditional methods, 1/ it is evident that a study of the

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1/ It should be noted that such a cost estimate is difficult to make. It is impossible, for example, simply to extrapolate the cost incurred in the FED-financed project because the cost of treatment and verification varies widely depending on the difficulty of access to the breeding sites and the characteristics of the stream. In the FED-financed project, for example, it proved possible to protect a 150-kilometer stretch of stream in the Tiassale area in the Ivory Coast with a modest DDT dosage of 0.1 part per million, while on the Leraba River in Upper Volta it was possible to affect a stretch of only 2.5 km with a much stronger dose of 1 per million.

cost of spraying by plane, and verification of the effectiveness of the treatment by helicopter, should now be undertaken as a matter of high priority. This would presumably involve, among others, (a) a survey of landing strips in the project area that could be used as bases of operation, and of the cost of provisioning these with the necessary supplies of insecticides, fuel and lubricants, (b) the types of planes and helicopters most suitable for the purpose, the number required and their cost, and (c) the cost of operating the aircraft, including flight personnel, maintenance, fuel, etc. To such "direct" costs should be added the compensation of supervisory personnel, of entomologists and other staff required. In making this study it will also be important to determine what breeding areas would be difficult or impossible to treat by air and would therefore still have to be treated on the ground.

20. The economies of scale of an aerial campaign are likely to reinforce the contention that the whole of the Tunis project area should be treated more or less at the same time. On the other hand, in the (probably unlikely) event that the use of aircraft will not result in a significant reduction in costs, it might be advisable to consider whether, as in the FED-financed project, an area smaller than that delimited by the Tunis Conference could not be selected. The selection of a smaller project area admittedly carried with it the danger of re-infestation. However, the real question would be the extent and likelihood of this danger. One would have to examine, for example, whether it would be feasible to select the White and Red Volta River basins in Upper Volta and Ghana as a more limited project area without running a really serious danger of re-infestation. It could be contended that this area has the highest priority for treatment because it contains extensive pockets of excessive population and a considerable area that could be opened up for settlement if the fly was eradicated. Any campaign in such an area could, of course, be regarded as the first phase of a project embracing a larger region.

Assessment of Economic Benefits

21. While interruption of the cycle of transmission of onchocerciasis would undoubtedly alleviate the human misery caused by this disease, it is important to assess the purely economic benefits that would be realized in relation to the cost. The costlier the campaign, the greater the need to determine whether the economic benefits would be commensurate.

22. WHO has sponsored two preliminary studies of the possible economic benefits. One was done by Mlle. Blanc of the Institut de Recherche Economique et de Planification of the University of Grenoble and covers Mali, Upper Volta and the Ivory Coast. The other was carried out in Ghana by Prof. Williams of the University of Edinborough.

23. Both studies agree that the potential benefits are of two kinds: (1) elimination of the loss of productivity by people infected with onchocerciasis, and (2) the increase in output made possible by the settlement of empty or relatively empty regions as the result of the elimination of the fly. However, the methods used by the two authors in appraising these benefits varies widely, which is perhaps understandable in view of the difficulties involved and the pioneering character of the studies.

24. In calculating the loss of production by people infected with onchocerciasis, Mlle. Blanc simply took the number of people estimated to be blind in Upper Volta and in the Korhogo and Sikasso regions of Ivory Coast and Mali respectively, multiplied it by an estimate of the average income per person in the rural labor force and thus arrived at an annual loss of production of CFAF 170 million ($680,000). 1/ Prof. Williams, on the other hand, departed from an estimate of the number of people likely to become infected with onchocerciasis in the seventies in the absence of a campaign against the vector and calculated the loss on the basis of a somewhat arbitrary assumption of a progressive decline in productivity beginning with 5 percent in the fourth year after infection and rising to 75 percent in the fifteenth year. Prof. Williams appears in fact to be more correct in so far as he based his estimate on the number of people likely to become infected rather than simply on the total number of people who are already blind and therefore cannot be expected to recover their productivity. His assumption that even people who are not totally blind do suffer a progressive loss in productivity also appears warranted.

25. In calculating the increase in production that would come about as the result of eradicating the vector in certain areas, Mlle. Blanc takes into account not only the output of newly settled areas but also assumes that the over-populated areas would experience an increase in per capita output as the result of emigration. She estimates the annual loss of output because of over-exploitation of land in the densely populated areas of Upper Volta and the Korhogo district at CFAF 285 million ($1,140,000) and adds to this CFAF 110 million ($440,000) for the estimated loss of output of people who are believed to have no land of their own owing to the heavy population density. Mlle. Blanc attributes over 80 percent of the total benefits to the increased production that would be possible in the newly settled areas. These she estimates on varying assumptions, sometimes on the basis of traditional agricultural techniques, sometimes on the basis of some type of irrigation, and still at other times on the basis of improved techniques facilitated by an extension service and better equipment. Her estimate of the total increase in output

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1/ In this paper a rounded rate of exchange of $1 = CFAF 250 is used.

on this account ranges from CFAF 2,700 to 3,400 million ($10,800,000 to $13,600,000). Of this total CFAF 2,000-2,500 million ($8,000,000 to $10,000,000) is attributed to the output of 200,000-250,000 people who would be settled in the White and Red Volta River Valleys in Upper Volta and who are expected to achieve rather high yields with improved methods of cultivation, although not with irrigation.

26. It should be emphasized that the benefits thus calculated by Mlle. Blanc are all on a gross basis and that no consideration is given to the time required to achieve them. No allowance is made for the cost of current inputs where these are assumed to be used; similarly, no provision is made for the cost of basic infrastructure, farm equipment etc. in the new areas. Mlle. Blanc does recognize from time to time that additional investment may be required here and there to realize the estimated output, although she makes no specific mention of the infrastructure presumably needed in the newly settled areas. However, her estimates of benefits require modification, above all, because they ignore the time factor. Even assuming that her estimate of the ultimate increase in production is correct (it should be interpolated here that in some respects she may have deliberately underestimated these even though in other aspects she may have exaggerated them), it is likely that this will be achieved only over a long period of her time. Thus her comparison of what she characterizes as the "minimum" annual benefits of CFAF 3.2 billion ($12,800,000) with the annual "maximum" cost of CFAF 0.6 billion ($2,400,000) for the treatment of breeding sites is rather deceptive. While there is some evidence of spontaneous resettlement of the limited areas already treated in Mali, Upper Volta and the Ivory Coast, experience in Africa generally demonstrates that even people living under difficult conditions are generally reluctant to migrate very rapidly and over long distances. Socio-religious ties to extended kinship groups and to ancestral homesteads tend to be important constraints on migration. Thus the benefits anticipated from increased production based on successful migration are subject to a considerable time discount.

27. Prof. Williams adopts a quite different approach to the assessment of the increase in output possible in newly cleared areas of Ghana. First of all, he assumes, in complete contradiction to Mlle. Blanc, that there will be some loss of output in the areas from which the new settlers will migrate. This may, of course, be due to a difference in circumstances, particularly in the degree of over-population. Secondly, he does take into account the time factor. He assumes, for example, that no net additional output would be achieved before the sixth year and that the full increase in output would not be achieved before the twelfth year. To the total "stream of benefits" he applies a discount rate of 10 percent per annum in order to obtain the "present value" of such benefits. Thirdly, he assumes that traditional methods of cultivation will be followed on the new land. On these bases he estimates the present value of the net benefits to be derived from the cultivation of new land over a period of 15 years at only 192,000 cedis ($188,000). This is only 24 percent of the benefits he

expects from the elimination of losses in productivity by people likely to be infected by onchocerciasis. His estimate of the present value of all benefits accruing to Ghana is only slightly over 1 million cedis (less than $1,000,000) and his allocation between the two types of benefits differs markedly from that of Mlle. Blanc. It should be emphasized, however, that while in theory Prof. Williams' analytical approach is sounder, his study is much more summary than the other and does not appear to have examined as thoroughly all the available data.

28. While the two studies have illuminated the problems involved, they can hardly be used for a definitive assessment of the benefits of a campaign against the vector. It is obviously necessary to determine at this stage what further studies ought to be undertaken and in what depth.

29. A further general study of the benefits likely to be achieved over the whole of the Tunis project area would probably not be particularly rewarding. What appears to be needed are studies in depth focusing on areas where the greatest potential benefits may be realized. Mlle. Blanc's study, together with information from other sources, indicates that Upper Volta is likely to profit most from a campaign against onchocerciasis, because a considerable part of the country is overpopulated and large areas can be cleared of the fly and made available for settlement. Within Upper Volta the study should focus on the benefits and methods of settling the White Volta River Valley, since this valley appears to have the largest amount of good, unexploited land and is situated immediately adjacent to densely populated areas where soil fertility is believed to be declining owing to the over-exploitation of soils. Additional studies might focus on the Korhogo area of the Ivory Coast and the districts of Navrongo, Zuarungu and Bawku in Ghana.

30. The following pre-investment studies are therefore needed to assess the possibilities and the cost (exclusive of the cost of the larvacidal campaign) and benefits of the resettlement:

(a) The White Volta River Valley in Upper Volta. The scope of the study to be undertaken there has been outlined in a draft annex entitled "Study of a Project for Settling the White Volta Valley" which is part of an IBRD agricultural study of Upper Volta. A copy of the annex is attached to this paper, so that no further discussion of this project needs to be given here.

(b) The Korhogo-Bandama Area. This study would investigate the resettlement of a portion of the population in the Korhogo area in the Valley of the White Bandama which has already been cleared of the fly under the FED-financed project. It should examine (1) the extent and results of such spontaneous re-settlement as has already taken place, (2) the cost, feasibility

and benefits of any government settlement plans, and (3) the attractiveness to the people of resettlement in the White Bandama area as compared with that of migrating to the more remote region of the southwest which the Government is also seeking to develop.

(c) The White and Red Volta River Valleys in Ghana. This would cover the feasibility, cost, benefits and methods of resettling people from the densely populated areas of the Navrongo, Zuarungu and Bawku districts of northern Ghana in the river valleys that might eventually be cleared. In contrast to the other two areas very little basic data, particularly on the amount and quality of land that would be available, appears to have been collected.

31. The first step would be to determine, through preliminary investigation on the ground, the exact scope and cost of the pre-investment studies. It will be particularly important that each of the studies determine as precisely as possible the amount, quality and potential of the land available for resettlement, the minimum cost entailed in its development, the degree and rapidity of the response of the population concerned to resettlement opportunities, and the methods to be employed in resettlement, including the measure of government assistance to be accorded to the settlers.

IV. Organization and Financing

32. At the regional WHO Conference held in Brazzaville, April 30-May 2, 1969, it was the unanimous opinion of the participants that WHO should be the "executing agency" with respect to both the pre-investment surveys and the implementation of the campaign against onchocerciasis. At the same time it was agreed that WHO would have to be assisted by a coordination and management committee including scientists and representatives of technical and financing institutions and governments. Such a committee was to have overall responsibility for evaluation of the project and a review of the scientific and administrative developments that might have an impact on the plan of operations. In November 1969 the Council of Administration of OCCGE endorsed the proposal to set up this committee and urged the WHO Regional Office for Africa to convene a meeting of the committee, together with representatives of all governments concerned, to consider all the financial, agro-economic and health aspects of the problem. Up to the present no action to establish such a committee has been undertaken.

33. The UNDP will undoubtedly have to play the critical role of financing the additional survey work and pre-investment studies that will have to be undertaken in order to prepare a comprehensive project.

While WHO should unquestionably be responsible for the surveys preliminary to, and the actual implementation of, the larvacidal campaign, it is doubtful that it should be the executing agency for the pre-investment studies essential to the formulation of specific plans for the development of areas cleared of the fly. This responsibility might best be entrusted to the FAO or the IBRD.

The Role of the Bank

34. While we should to some extent be guided by future developments in crystallizing our ideas about the role which the Bank can play, my provisional views are that the Bank can provide useful assistance in:

(a) Defining the work that must be undertaken to determine the content and costs and benefits of the project.

(1) UNDP at present has under consideration a request from WHO for the financing of further preparatory work. Apparently WHO seeks financing for a Preparatory Mission which will"(i) collect and assess all available epidemiological, entomological and other data required for the preparation of a regional onchocerciasis campaign; (ii) draw up a feasible plan of work to undertake the control of onchocerciasis in the area, taking into account the economic development of reclaimed areas; and (iii) work out the costs involved and identify and analyse the possible financial resources available." WHO and UNDP have arranged an "inter-agency consultation" at Geneva on July 6 and 7, 1970, at which I shall represent the Bank, in order "to define respective areas of technical and financial support to the mission and to the recommended onchocerciasis control project in the Volta River basin" (the reference to the Volta River basin appears rather unclear, since the proposed project extends considerably beyond this basin).

(2) In my opinion the proposed terms of reference of the "mission" seem to be both too general and too ambitious. It is important at this juncture to define more exactly what needs to be done. Depending somewhat on the course of the discussions, I would propose to emphasize at the Geneva meeting the need to concentrate on: (i) a definition of the methods, costs and scope of the larvacidal campaign. This involves a possible determination of (a) the additional breeding sites that still need to be mapped, (b) the feasibility and cost of the use of aircraft in the campaign in view of the potentialities of the use of aircraft in reducing costs,

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(c) the practicability of confining the campaign to the treatment of perennial breeding sites, and (d) the practicability of restricting the campaign, at least in its initial stages, to an area more limited than that defined by the Tunis Conference. These questions could be investigated by the proposed Mission, provided it is staffed with the requisite experts. (ii) a definition of the pre-investment studies that should be undertaken to assess the costs, benefits and methods of development of the areas cleared of the fly. It would probably be preferable to send a separate mission or missions to the field to determine the scope and cost of such studies. On the basis of these findings requests for financing the necessary pre-investment work could then be prepared for submission to UNDP. Following decisions by UNDP, the executing agencies for these studies could be selected.

(b) Undertaking to act as executing agency for the pre-investment studies on the areas to be developed. As already indicated, this task could be undertaken either by the Bank or FAO.

(c) Organizing and in part providing the financing of an eventual project.

(1) The view has repeatedly been expressed that some international financial agency should eventually take the leadership in mobilizing multilateral and bilateral resources for financing the project. If indeed all the parties concerned agree that the Bank should play this role, I believe that the Bank should be prepared to assume this responsibility. A final decision on this is not now necessary, and I consider that it would be sufficient that it be authorized at Geneva, if the occasion arises, to indicate that the Bank would give sympathetic consideration to this proposal.

(2) Financing would be required (following UNDP financing of the preparatory surveys and studies) in the first instance for the larvacidal campaign. While IDA financing of some part of this cost should not be excluded, it would probably be preferable to secure the necessary financing as far as possible on a grant basis. This would obviate the difficulty of apportioning among the states concerned the responsibility for securing loans and credits. This problem of apportionment would be all the more difficult to resolve because distribution of benefits of a larvacidal campaign would probably not be proportionate to the cost of the campaign in the territory of each of the participating states.

(3) Financing of the development of areas cleared of the fly would also have to be undertaken. For this purpose the Bank Group might itself provide part of the financing, provided, of course, the analysis of the costs and benefits warrant such intervention.

(d) Participating in a coordinating committee.

If such a committee should be established in accordance with proposals already made, the Bank should be prepared to accept an invitation to be represented subject to a satisfactory definition of its terms of reference.

JCde Wilde:mam
June 22, 1970

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ANNEX II

Extracts of a report dated January 18, 1972, from our PMWA about "Prospective Development of River Blindness Areas".

The PAG mission, which started work officially in August 1971 had its terms of reference examined and agreed upon during an interagency meeting (WHO, UNDP, Entente, Ghana, OCCGE, FED, USAID, FAO and IBRD) on July 6 and 7, 1970, in Geneva. In summary, the main task of the PAG mission would entail submitting to an interagency meeting, to be held in Geneva in July 1972, a comprehensive report which would not only propose, outline and justify an epidemiological eradication or control campaign of simulium damnosum (the vector of riverblindness) in seven 1/ West African States, but which would also propose and provide necessary information on possible development projects in hitherto contaminated areas.

Findings of PMWA Mission

The recent PMWA mission to Upper Volta aimed at identifying areas presenting good conditions for land settlement/agricultural development projects following an extended riverblindness control program.

Description of Main Regions Affected by Riverblindness

The only vector of human onchocerciasis in Upper Volta is a blackfly (simulium damnosum). WHO has defined the present limits of simulium in Upper Volta as covering approximately the whole of the area South of the 13° parallel line. However, areas of riverblindness concentration exist almost entirely along the valleys of the permanent streams (White and Red Volta, in the central part of the country, and their tributaries Nouhao and Sissili: Black Volta river and its main tributary Bougouriba; Comoé, Western and Eastern Leraba rivers in the Southwest, see map 1). The following is a brief description of the basins of the main rivers in Upper Volta where riverblindness is known to exist.

a) Nouhao river basin: The valley is completely uncultivated while adjacent areas eastward and southward along the Ghanaian border are heavily cultivated. The correlation between riverblindness and underpopulation is very likely.

b) White and Red Volta river basins: From the Ghanaian border to the national road Ouagadougou-Fada N'Gourma, White Volta valley has little or no settled population. North of the national road, the valley is more populated but population density is generally under 5 inhabitants per km^2. The low population density of the valley is in contrast to the high population pressure of several adjacent acreas (Garango, Tenkodogo, Koupela, Kombissiri, Ouagadougou, Manga, Zabré). Riverblindness presence and low population seems to be strongly correlated.

1/ Upper Volta, Ghana, Togo, Dahomey, Mali, Ivory Coast and Niger.

c) Sissili river basin: the Sissili region is very sparsely populated and it is difficult to find any correlation between river-blindness presence and underpopulation in the valley area.

d) Black Volta river basin: the Black Volta valley has a very low population density and large areas are not cultivated at all. Population density is, however, higher in the Southern part of the valley along the Ghanaian border. On the other hand the valley of the Bougouriba river, the main tributary of the Black Volta, has very little or no settled population. The correlation between riverblindness and scarcity of population is less evident than for the White Volta because the population density is also very low in adjacent areas except around Diebougou.

e) Comoé river basin: a riverblindness control program financed by FED is underway in the Comoé river basin. The valleys are uncultivated mainly in their Southern part, in the proximity of the Ivory Coast border.

Available information on riverblindness infested areas is very limited and often requires updating. An important issue is the degree of human desertion of areas said to have been abandoned due to riverblindness. Although the PMWA mission spent only little time in Upper Volta, it gained the impression that the whole area along the main rivers is not completely deserted. Map 2 shows clearly that soils are often heavily cultivated in zones with medium riverblindness infection rate (mainly Garango and Zabré areas). In addition, the mission was told by Government officials that a small scale, but natural movement of population from densely populated areas towards the infested valleys took place a few years ago. The mission feels that population in the adjacent areas is not fully aware of the presence of riverblindness in the valleys. It seems that this natural small scale population movement towards the infested valleys has resulted from the increase in population pressure in the densely inhabited adjacent areas and has been aided by the increased use of bicycles and animal-drawn carts, which encourages the farmers to cultivate areas bordering the rivers very distant from their own villages (up to 30 km). However, it can be assumed, but not easily demonstrated in a convincing manner, that any large scale organized settlement program would not be feasible without riverblindness eradication. The following paragraphs describe the areas where such settlement programs should be envisaged.

Proposed Selection of Priority Regions

The mission has used the two following criteria to identify areas presenting good conditions for the implementation of agricultural development programs following an extended riverblindness control program:

(a) zones which are almost totally uncultivated along the rivers, but possess relatively important areas 1/of good agricultural soils, and

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1/ Not smaller than 10,000 ha

(b) proximity of densely populated areas (more than 20 inhabitants per km^2).

On map 1 showing the riverblindness infestation in Upper Volta, the mission has located the areas with good agricultural soils. In these areas, good soils are mainly concentrated in the White Volta, Red Volta and Bougouriba valleys. In addition these are the only valleys with adjacent areas of relatively high population pressure.

White and Red Volta rivers. Map 2 in Annex, prepared by the mission is the result of the superposition of the land use map, the riverblindness distribution map and the pedological map but with only favorable soils indicated. River valleys shown on this map are almost completely uncultivated (except for Tiebélé, Manga, Zabré and Garango areas) and possess an important area of good agricultural soils (about 166,000 ha of brown soils 1/ and 14,500 ha of hydromorphic soils 2/). In addition they are surrounded by areas with high population pressure.

Bougouriba valley. The same comments apply to the Bougouriba valley as those made above in connection with the White and Red Volta river valleys. Good agricultural soils cover an area of about 95,000 ha 3/ of which 70,000 ha brown soils, 25,000 ha hydromorphic soils, both of good fertility.

However, adjacent areas to the contaminated valley are less heavily populated than the ones adjacent to White Volta valley. An agricultural development program in the Bougouriba valley should be comparatively more costly and less successful since the settlers would necessarily come from distant over-populated areas.

Because of the above considerations, the development of White Volta valley should be given priority. This was already recommended by the last Bank economic mission to Upper Volta (report dated November 27, 1970), and the Government has recently asked FAC to study the development possibilities of the White and Red Volta valleys. A FAC mission, which is in Upper Volta since November 15, 1971, is preparing a project outline and will draw up terms of reference for the necessary feasibility study.

1/ Brown soils are suitable for rainfed sorghum, maize and cotton cultivation and for irrigated sugar cane growing.

2/ Hydromorphic soils are suitable for rice cultivation.

3/ The mission has lowered by 45% the area calculated on the 1/500,000 pedological map in order to take into account the imprecision (of the map) and the hilly aspect of the region.

c) FAC Project Outline for the Development of White and Red Volta Valleys

The following information has been given to the mission by the FAC team and should be considered as confidential. FAC will submit a final report to the Government in February 1972, a copy of which will be sent to us.

The area identified by FAC for future agricultural development covers about 870,000 ha and includes:

400,000 ha of agricultural soils 1/
300,000 ha of pasture land for traditional cattle breeding
50,000 ha of pasture land on which a ranch could be located
110,000 ha of forests; poor agricultural soils would be classified as forest reserves
7,000 ha for re-afforestation near Ouagadougou to supply fire wood.

FAC is preparing a two-stage project. During the first stage (1972-76) activities will involve the carrying out of the necessary surveys 2/ and the implementation of an experimental settlement program (40 villages, each with about 500 inhabitants). Information acquired during the experimental phase would allow for the preparation in 1975-76 of the necessary feasibility study for a full scale project.

The project, which would include the establishment of strong extension services, would also include the following activities:

(a) mechanical clearing of the agricultural zone
(b) mechanical ploughing for the first two years of cultivation

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1/ This figure does not correspond to the one calculated by the PMWA mission. The reason for the discrepancy is likely to be due to the use of different criteria in the selection of good agricultural soils. PMWA mission has selected only the best agricultural soils (brown and hydromorphic soils) whereas FAC mission has probably included soils of medium fertility. In addition PMWA mission was not able to receive the 1/200,000 soil map from the Government and had to work on the 1/500,000 map.

2/ -1/20,000 aerial photographs of the whole of the agricultural zones
-pedological survey (1/20,000 scale) of the agricultural zones (40,000 ha per year)
-hydrogeological survey (40,000 ha per year) to determine the location of the new villages and to build wells for human and animal consumption
-determination of possible dam location

(c) construction of feeder roads
(d) construction of 2-3 wells in every new village
(e) construction of anti-erosion bunds
(f) construction of storage facilities in every village for agricultural inputs stocking
(g) applied agricultural, zootechnical and forestry research
(h) setting up of two or three typical farms where the proposed cropping patterns shall be tested.

As envisaged in the FAC outline, the full scale land development project would aim at settling over a period of 15-17 years, 200-250 villages with a total population of about 200-250,000 inhabitants. The project, which would be implemented through an autonomous project authority, would cost approximately CFAF 10-12 billion; at full production (year 20 of project) it would have a total annual output in cash crops 1/, food crops 2/ and livestock, estimated at about CFAF 2.0 billion. Based on these preliminary findings the FAC mission calculates the financial rate of return at farm level at 12-15% and the project economic rate of return at 20%.

In addition other economic benefits would arise from the reduction of population pressure in the adjacent non-contaminated areas resulting from migration towards valleys where the eradication program would take place. These population movements would allow for a better balance between area under cultivation and the areas lying fallow and would permit the introduction of a more rational rotation system in over-populated areas resulting in higher yields of food crops. Conceivably farmers would thus be able to meet their needs for food crops from a smaller area and would increase the area in cash crops.

O C C G E

Organisation de Coopération et de Coordination pour la Lutte contre les Grandes Endémies (OCCGE) is an inter-governmental agency of all French-speaking, West African countries, with headquarters in Bobo-Dioulasso. It has received financial and technical assistance from France, has been studying onchocerciasis since 1961-62 and is the initiator of the WHO project.

The present Secretary General is Dr. C. Sow, of Mali, assisted by Dr. Le Berre, of France.

1/ Groundnuts and cotton
2/ Millet, sorghum, maize, rice and cowpeas.

8.14

CARTE DE REPARTITION DE L'ONCHOCERCOSE

(HTE VOLTA - C. D'IVOIRE - N. DAHOMEY)

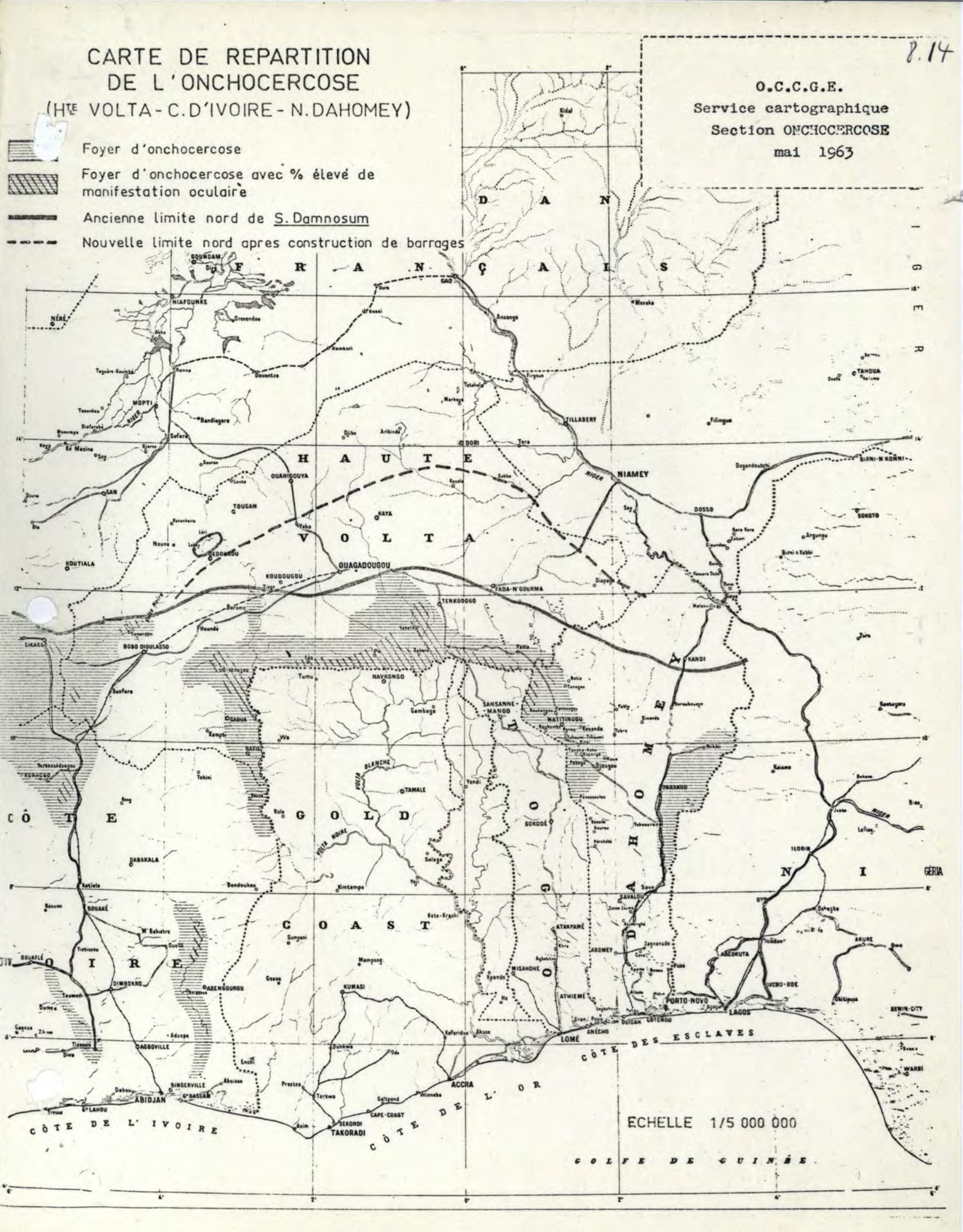
O.C.C.G.E.
Service cartographique
Section ONCHOCERCOSE
mai 1963

Foyer d'onchocercose

Foyer d'onchocercose avec % élevé de manifestation oculaire

Ancienne limite nord de S. Damnosum

Nouvelle limite nord apres construction de barrages



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B. LIVESTOCK

A Bank/IDA mission, in April 1971, identified an integrated livestock project in the region around Bobo-Dioulasso, along the lines of the seventh paragraph of the above report. It would consist of a stock-route, feed lots, assistance to farmers for livestock fattening, a breeding station, feed mixing facilities, extension services and meat handling facilities. The cost is estimated at US $3.0 - US $4.0 million and US $3.0 million credit is in the lending program for FY 1973. However, FED has also indicated interest in livestock development in the same area and the Government is presently considering how to take the greatest advantage of this concurrent interest. This may very well result in delaying the project until FY 1974. A second project is expected to follow by 1976/77 and has been estimated at US $4.0 million.

C. EDUCATION

Our views about education in Upper Volta, the path that education policy should take, and the outline of a possible project have been presented to the Government in a memorandum attached to a letter dated December 27, 1971. Here are the letter and the memorandum:

Letter:

"On several occasions during recent months, we have indicated to several representatives of the Upper Volta Government the desire of the World Bank Group to assist in the development of Upper Volta's education system.

"On the basis of the annex on education of our economic report dated November 27, 1970, and the results of our survey mission of Messrs. Loewen, Picker and Jallade in June 1971, we should now like to bring to your attention the following suggestions.

Proposed IDA financing for the Rural Education Centers

"The main conclusion of the mission is that a project which the IDA could partly finance might include the following items:

Rural Education Centers - efforts should be made to improve the quality and pursue the expansion of the system of rural education centers through:

improved training of teachers, instructors and supervisors; this would include the improvement of a teacher training center for men and the construction of a new training center for women as well as transport facilities for supervisors;

the provision of teaching and farm equipment to existing centers;

the construction of a number of new rural training centers to experiment with a second level of training which would offer in-service courses for farmers.

"This project item would not only include the financing of buildings and equipment but also the necessary technical assistance. The total cost is tentatively estimated at about US $4,600,000 (exchange rate as of Dec. 27th).

-- for Science and Technology courses in secondary schools

Science and Technology Courses in Secondary Schools - It would appear useful to provide science and technology equipment to secondary schools to permit the introduction of new technology courses and to-equip the general science laboratories. The estimated cost of this item is about US $440,000.

--for the National Pedagogy Center

National Pedagogy Center - This Center should be provided with warehouse and printing facilities. The cost would be about US $110,000.

"You will note that the proposed project is mainly devoted to rural education and training. Our preference for this aspect is based on the following considerations.

Priority to rural education

"The conventional education system, which is historically imported from Europe, contains very little that can improve the economic and social life of rural students. It is also very costly. For these reasons, which are set out in more detail in the attached memorandum, we think that an education project to be financed by IDA should give the highest priority not to conventional education (be it at primary, secondary or higher level), but to new forms which would improve knowledge and skills in ways which are more relevant to the great majority of your country's population. Therefore, an education project for consideration by the IDA should be addressed mainly at the needs of the rural population - at school age and adults.

"As you see, we are in line with the preoccupations which led your government, ten years ago, to start an experiment in rural education through the establishment of a considerable number of Rural Education Centers. According to recent information, however, these centers are not functioning entirely satisfactorily and, with your agreement, we would like to direct a possible IDA education project towards an improvement and expansion of the CER's.

R.E.C.s should not be "harmonized" with conventional education

"In our view, for reasons which are also set out in the attached memorandum, the improvement of the CER's should not and cannot be brought about by making them more similar to the traditional primary schools, through a policy of "harmonization" but, to the contrary, by strengthening their unique rural-vocational character and by broadening their scope to make them more relevant to the rural communities. Our mission will seek the views of your government on these matters.

Proposed improvements in R.E.C.s

"At this stage, we consider that the specific steps to be taken for the improvement in the functioning of the CER's should include the following:

Broadening the scope of the training courses given to make the CER's more relevant for the community as a whole; courses of various lengths could be given directed not only to youth in the age group 13-18 but also to adult men and women;

Courses and curricula should be far more flexible to encourage those whose time is limited to certain months in the year or to weekends and evenings. Students should not be taken away from productive activities; they should have more opportunities, particularly in the main farming season, to earn an income through productive out-of-school activities. These activities could be integrated in the program of the CER's through a system of credits for out-of-school activities;

"Teachers should be selected with adequate first-hand knowledge of rural conditions and of farming techniques.

"The training of these teachers should be improved;

"Effective cooperation should be sought with the Ministry of Agriculture and its Regional Development Offices which should participate in the operation of the centers.

"The supervision of the centers should be improved and a system of guidance and counseling of teachers and students should be established.

"We would greatly appreciate your views on the suggestions made above.

"If you agree with the tentative selection of project items, we plan to prepare a suitable project for IDA financing early in 1972. As already announced by cable, we propose to send a mission to Upper Volta in February for further discussions and preparation work."

Memorandum:

Conventional imported system is generally inadequate

"The role of Conventional Education - It might appear odd at first not to recommend that the highest priority be given to the extension of primary education in a country where only 11 to 12 percent of children from 6 to 11 years of age attend primary schools. However, we can ignore less and less the fact that conventional primary education, such as has been imported from Europe, is very poorly adapted to the needs of a country like Upper Volta as well as extremely costly in terms of national income.

"Historically, the European school system was set up from the top to the bottom and primary education was conceived as the first of three stages. Even today, it only lays foundations and has therefore remained very general in nature. Trades and professions are learned elsewhere or later.

"To say that it is a luxury would no doubt be an exaggeration. It is quite certain, however, that it is nowhere sufficient to ensure an effective integration in economic life. From this standpoint, it needs to be complemented.

"While industrial countries can afford such a system, the question arises whether Upper Volta can afford it. This question is all the more relevant if one compares the cost of higher education to the national per capita income: it is much higher in Upper Volta (and in Africa generally) than in the industrial countries.

High cost of conventional system

" Two factors account for this high cost. On the one hand, the relatively high salaries of teachers and on the other hand, the high proportion of failures. It is a fact that the average salary of a teacher in Upper Volta is about thirty times the national product per capita, whereas in Europe and in America the equivalent ratio is about two or less. We shall not analyze here the historical causes of this situation.

The fact remains that, in the long run, it would appear desirable that the ratio between teachers' salaries and the national product per capita be reduced.

"Another cause for such high cost is the large number of pupil/years necessary to reach the formal objective of primary education, e.i. the "production" of a holder of an elementary school leaving certificate. Because of high drop out and repeater rates, it is estimated that thirty pupil/years are required in Upper Volta for each school certificate holder.

Causes of inefficiency

"What accounts for this relative inefficiency of education in Africa? Obviously, it is not due to a congenital inferiority among the pupils, but rather, we believe, to the fact that they are taught things which have no close relevance to them, and also that they are confined in a purely passive role and that they have to use a difficult foreign language.

The impact of the conventional school in rural areas

"Furthermore, even if conventional education were to become more efficient, what would it bring to the rural sector? The only tools which are used in the primary school are those of civil servants or office clerks, i.e. paper and pencil. Is not this incidentally, one of the reasons why primary education was introduced in Africa? Having been grafted upon traditional society, the conventional school does in no way show people that this society can shake off its stagnation and embark as a whole on the road to progress. Instead, it imparts to the pupils the idea that only some individuals can escape underdevelopment by acquiring diplomas which entitle one to a white collar job. However, the creation of jobs in the modern sector is growing very slowly. Already, many Voltaic youths have come to realize that their studies and even their primary or secondary diplomas are not enough to obtain the job for which they were preparing, and they may become a burden instead of an asset for their country. Since the worsening of this situation cannot be a policy objective, it seems to follow that conventional education should not be developed beyond the needs of the modern sector of the economy.

"Moreover, it seems to us that the usefulness of conventional education to the country's economy would be enhanced if more practical subjects (sciences, technology, economics, management, etc.) could be included in the curriculum.

Necessary emphasis of education and training for rural life

"Education and Training in the Rural Environment - In our opinion, therefore, the Government of Upper Volta should concentrate its main efforts on education and training for the rural life. This explains our strong interest in the Rural Education Centers (CER). Unfortunately, it appears clearly that the results have not been anywhere near the level of expectations. This, in our view, can be explained essentially in the following manner:

Weaknesses of R.E.C.s

- The population has considered rural education as a "cheap form of education", an emergency exit for those who did

not succeed in escaping traditional society through the main door of conventional education;

- this feeling was reinforced by the amount of time devoted to the teaching of French, which is the main key to the modern sector, and by the fact that, in most cases, the rural education teachers did not achieve better results in the fields belonging to the CER than those obtained by the other farmers;

- the years when boys are supposed to attend the CER are actually those during which they should start earning money to get married;

- they leave the CER at an age when they are hardly able to impress their families with the usefulness of what they may have learned and are still not able to settle on their own;

- moreover, the training they have received does little to increase their efficiency as farmers and when they wish to settle on their own, they lack the means to do so;

- consequently, a large number of former CER pupils leave Upper Volta to seek employment in Ivory Coast or Ghana;

- the disenchantment of the population towards the CER seems to have reached the point where most of these centers do not seem to operate as they should and are closed under various pretenses at times when they should be open;

- it seems, furthermore, that there are practically no inspections.

"In view of the above, it would seem that the following reforms ought to be envisaged:

Proposed reforms: the R.E.C. is part of the village

In contrast to the conventional schools which are a foreign element in the rural environment, the rural education centers should be integrated as much as possible into the village life. In addition to regular students, adults should willingly attend these centers either to take practical courses in agronomy, agricultural economics, accounting, nutrition, hygiene, civic education, or to take part in activities which may be less directly utilitarian but more conducive to improvement in the quality of life in the village. Methods should be as lively as possible; practical demonstrations should prevail over theoretical presentation. The pupils should be encouraged to maintain the closest contact with their environment and

should never be required to attend courses at the expense of farm work. Instead, farm work should be encourated and practical results rewarded.

Need for careful recruitment of teachers

"Particular attention should be given to the recruitment of teachers. The rural education teachers should be familiar with rural life and the traditional subsistence economy. They should be able and willing to set the example of an efficient agriculture. At the same time, of course, they should be able to teach the three Rs. Where are such teachers to be found? The efficiency of the centers will, in our view, depend a great deal on the answers to these questions.

Proposed improvements in equipment, management and supervision

"The means now available to the CER should also be increased and they should be provided with more teaching material and also additional tools and equipment for practical work.

"Rural education should constitute an integral part of the rural development policy. Consequently, a close relationship should be established between the CER, the Ministry of Agriculture and the Regional Development Organizations. The latter should supervise the practical work carried out in the CER.

"The supervision of the CER should generally be strengthened.

"Finally, one may ask whether the teaching of French which now takes up half of the time available in the CER, is truly an essential element of the teaching process and whther it should be left optional."

Remarks:

More recently, there have been reports of a growing malaise about the educational situation. On the one hand, the Government is unhappy with the fact that a very low percentage of school-age children can attend school, and wants to reach a percentage closer to that of other African countries. On the other hand, the Government is powerless to provide employment for all school graduates. Some are drafted to the army, but this cannot go very far. Furthermore, the Ministry of Education is aware of the failure of rural education and is reported to be considering leaving it to the Ministry of Agriculture.

In the last few days, we have learned that the Government is in "essential agreement" with our proposals.

8.41

D. TRANSPORTATION

A project is expected to be presented to the Executive Directors before the end of the fiscal year for the construction of two roads in the cotton area linking Solenzo to Koundougou (not Koudougou), on the road to Mali, and Houndé to Béréba, on the Ouagadougou-Abidjan railway. A US $2.4 million credit is envisaged.

The Government has also requested us to take an interest in a project to improve the maintenance of secondary roads. A feasibility study is about to be financed by FAC and we are prepared to finance the project if it is feasible.

A special transportation project would be the extension of the Abidjan-Ouagadougou railway to Tambao, the site of manganese deposit, to satisfy the needs of an eventual mining operation. This project is a perennial dream for the Government of Upper Volta. UNDP has since 1966 financed a series of technical studies about the deposit and related technical problems. These studies have now been completed and UNDP has recently undertaken an economic feasibility study. We have reviewed the terms of reference for this study and will periodically consult with UNDP so as to make sure that the study will cover all the questions that may someday be asked by mining companies and financing agencies. An analysis of this project, extracted from our economic report dated November 27, 1970, is attached to 8.E Mineral Resources Section.

E. MINERAL RESOURCES

Upper Volta has some mineral resources, particularly a relatively rich manganese deposit at Tambao, in the North. The attached presentation of the project is extracted from our economic report dated November 27, 1970. A further note summarizes our present assessment of the project.

Liptako-Gourma Authority

It should be added that the Tambao deposit is one of many in a geological area which includes parts of Niger, Mali and Upper Volta and roughly corresponds to an ancient kingdom named Liptako-Gourma. The other main deposits are phosphate in Tilemsi, limestone in Tin Hrassan, iron and kaolin in Say, manganese again in Ansongo and Tera, copper and molybdenum in Kourki and Kaya. At the instigation of UNDP, the three countries have recently set up a Liptako-Gourma Authority with headquarters in Ouagadougou. Its General Manager is Mr. C.B. Samake from Mali. Its objective is an integrated development of the area based on mineral resources. A paramount problem will be the development of transportation links. Upper Volta may, in this respect, get into conflict with Niger, because Upper Volta wants to develop the railway link with Abidjan and Niger wants to develop the river.

Exploitation of Mineral Resources (Manganese)

While mineral research and exploration has proceeded on a number of fronts, most of the attention in Upper Volta in recent years has focused on ways and means of exploiting the manganese deposits at Tambao. Successive UNDP-financed projects, the first of which was initiated in 1966, have addressed themselves to this problem.

Sizing up the deposit

The manganese ores at Tambao are found principally in two hills and continue below the level of the peneplain. While final investigations are still being completed, they are likely to confirm the existence of around 10 million tons of merchantable oxidized ores.[1/] These ores are of a grade superior to most of those now being mined in the world. About 51 percent are of "chemical grade", containing more than 56 percent manganese and 85 percent manganese dioxide. Of the balance, 32 percent are of superior metallurgical grade, averaging 51 percent manganese, and 17 percent of standard metallurgical grade, averaging 46 percent manganese. Impurities are well within commercial specifications, although the phosphorus content of some ore is rather high but still acceptable.

Below the oxide ores there is a considerable body of carbonate ore, interspersed with oxides. The size of this ore body is still subject to investigation, but it is believed to total about 10 million tons. This ore, reported to assay 36-52 percent manganese, could be oxidized on the spot by calcination and subsequently pelletized at a total estimated cost of $8 per ton, thus raising the manganese content to nearly 59 percent on the average.

Quality of deposit

The Tambao deposit has a number of other advantages. All of the oxides and part of the carbonates could be mined by open-cut methods, and, owing to the configuration of the ore body, the amount of sterile matter excavated per ton of ore would probably be only 2.25 tons as compared with 5 tons in many other mining sites. The ore also has an abnormally low humidity content (1 percent) and would yield very little "fines" which would have to be sold at a discount. Finally, the bulk of the ore would require no treatment. Since Nedeco made its economic feasibility study of the project in 1967, it has been demonstrated that little or no water would be required for beneficiation.

Distance from the sea

The principal disadvantage of Tambao is its distance from the sea (Abidjan) - 1,514 kilometers. Exploitation of the deposit would require the construction of a 353 kilometer railway from Tambao to Ouagadougou[2/] whence the existing RAN railway runs to Abidjan. Nedeco gave some consideration to a combined road-rail route but came to the conclusion that, despite a lower initial investment, such an alternative would entail higher transport costs

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1/ More recent data point to a reserve of 12.6 million tons averaging 54.5 Mn, but a breakdown of this tonnage by grade was not available at the time of this report.

2/ Via Dori, a major cattle market. A direct route, bypassing Dori, would be 340 kilometers long.

per ton-kilometer. A more detailed study of this railway is now being carried out under contract to UNDP by Omnium Technique d'Amenagement (OTAM). This covers the detailed alignment, cost and specifications of the first 91-kilometer stretch from Ouagadougou to Kaya and a somewhat less detailed study of the balance of the railway, including the economic feasibility of a branch from Dori to Niamey in Niger. This entire study which is to be finished by late 1971 or early 1972 should provide a reasonably reliable estimate of the investment required. Estimates of the fixed investment in the railway (i.e. excluding locomotives and rolling stock) now range from about $24 million to $28 million, though OTAM apparently believes that the lower estimate will prove more valid since the alignment will encounter few topographical difficulties and will not necessitate the construction of many bridges.

Will there be a profit margin?

The critical question is whether the costs of production, transport and handling will make it possible to achieve an f.o.b. price at Abidjan which, taking into account actual and prospective ore prices, will make it possible for the eventual mining concern to earn an attractive profit and for the Government to obtain a significant amount of revenue. Since the direct employment generated by the mining and transport has been estimated at only 1,500, the revenue likely to be obtained from the mining operation should be the principal consideration in Upper Volta's decision to proceed with the project. True, the railway will also be able to carry some general cargo and to transport livestock and agricultural produce from the North. However, this is likely to be a marginal consideration, particularly since the agricultural potential of the area north of Ouagadougou is extremely limited.

Mining cost estimates

Pending completion of the UNDP feasibility study, prospective costs can only be approximately indicated and primarily for the purpose of giving a rough order of magnitude of the various component elements. They will be given on the assumption that around 500,000 tons of ore will be produced and shipped annually, which is generally accepted as the most feasible total.

The costs per ton of ore f.o.b. rail car at Tambao were originally estimated by Nedeco at $9.49 or, with a 10 percent contingency, at $10.44. The composition of this total was as follows:

Development, mining and handling	$2.05
Beneficiation (water, energy and other)	2.59
Overheads	0.50
Interest and amortization	1.71
General expenses (sales, etc.)	2.55
Extra costs for chemical and/or battery ore	0.09
Total	9.49
Contingency	0.95
Total	$10.44

On the basis of more recent evidence, Nedeco may well have overestimated the cost of beneficiation. Little beneficiation is now believed to be necessary. This will reduce the amount of water that will have to be supplied essentially to that for potable water. Moreover, current hydrological investigations are expected to confirm that water can be obtained from underground sources instead of by a long pipeline from the Niger River as originally envisaged, because a limestone aquifer discovered near Oursi apparently extends to Tambao. Tentatively, beneficiation costs may be reduced by $1 per ton. Assuming that all the other cost components remain valid, the cost f.o.b. rail car would be around $9.50 per ton.

Transportation costs

Rail transport costs would consist of (1) the operating costs of the railway per ton of ore carried over the whole length of the railway from Tambao to the Vridi port of Abidjan, and (2) the cost per ton of interest and amortization on the new portion of the railway.

The RAN indicated to the Voltaic Government in 1968 that it was prepared to haul ore at a marginal operating cost of CFAF 2,100 per ton ($8.40).[1/] While there is some question whether RAN will be prepared to adhere to this figure, it has been retained for the purpose of this rough calculation. It should be noted, however, that this does not provide for interest and amortization of the ore wagons and their maintenance, both of which will be at the expense of the mining company. The current UNDP project director has estimated these items at $0.38 and $0.33 per ton respectively, raising the total cost to $9.11 per ton.

Unit costs of transportation

The interest and amortization charges on the fixed investment in the new railway that would have to be charged per ton will depend on (1) the cost of the investment, (2) the interest rate and (3) the period of amortization. Based on level annual combined interest and amortization payments, costs per ton under various alternatives would be approximately as follows (in all cases assuming an annual ore volume of 500,000 tons):

	Rail Investment of $24 million		Rail Investment of $28 million	
	Amortization of		Amortization of	
	20yrs.	40yrs.	20yrs.	40yrs.
Interest at 6%	$4.18	$3.19	$4.88	$3.72
Interest at 7%	$4.53	$3.60	$5.28	$4.20

1/ Here as elsewhere prices or costs in CFA francs have been converted at the rounded rate of CFAF 250 = $1.00, because they were fixed before the partial devaluation of the CFA franc in August 1969.

The bearing of the interest rate and the period of amortization on costs is thus readily evident. In particular, doubling the amortization period would reduce costs per ton by approximately $1. Whether this can be achieved depends on the outcome of investigations into the economic utilization of the carbonate deposits. If these deposits can be economically beneficiated, or if the carbonate can be sold as carbonate at attractive prices for direct use in the metallurgical industry (there is some evidence that in some cases carbonate is now used in blast furnaces without transformation), a 40-year period of amortization should prove feasible.

Other deposits in the area

Railway interest and amortization charges per ton of ore could also be reduced if, in addition to marginal quantities of non-mineral commodities, other ores could be transported over the new railway. For this reason a current UNDP project (UPV6) is making additional mining studies in the areas that could be served by the new railway, including the Tin Edia deposit already mentioned; and BRGM is, as previously indicated, surveying the porphyric copper-molybdenum deposit in the Kenya district. Of relevance also is another UNDP minerals project which is exploring another porphyric copper-molybdenum deposit near Kourki in Niger, 40 kilometers from Tambao. Hypothetical speculations regarding the outcome of these investigations are fruitless. However, it is expected that sometime in 1972 a reasonably reliable evaluation of the prospects of commercial exploitation of both the Kaya and Kourki deposits will be possible. If considerable quantities of ore can be mined at either or both these locations, this would presumably have an important bearing on the costs and benefits of developing and transporting the Tambao ore.

A cement Plant?

Consideration has also been given to the possibility of transporting over the new railway cement from a new plant that could be established in the North on the basis of limestone deposits found at Tin Hrassan. Such a plant, however, would even at a minimum annual capacity of 70,000 tons, considerably exceed Upper Volta's consumption of 30,000 tons and would therefore have to compete in the export market of the coastal countries which are likely to be more economically served by a projected plant in Togo. A cement plant constructed in Niger has experienced considerable difficulties in view of the limited market for its output.

Transportation units costs

Without taking into account the possibility of transporting other non-manganese ores or of extending the railway amortization period to 40 years, the cost of Tambao ore f.o.b. Abidjan could be roughly estimated as follows (per MT):

Production, administration and overhead costs	$9.50
Transport costs (excluding interest and amortization)	9.10
Interest and amortization ($24 million over 20 yrs) on new railway:	
6 percent	4.18
(7 percent)	(4.53)
Storage and shiploading at Vridi port, Abidjan	0.55
Total	23.33 (23.78)

It should again be emphasized, however, that this figure of around $23 per ton is only indicative and that it is possible that the favorable outcome of current investigations may reduce it.

Selling price

The other crucial element in the equation is the price at which it will be possible to sell the Tambao ore f.o.b. Abidjan. Although the Tambao deposits contain a large amount of ore of chemical and battery grade, all but a small quantity will presumably have to be sold for metallurgical purposes, since the chemical and dry-battery industries account for only about 5 percent of total consumption. In recent years the prices of metallurgical grades have fallen sharply, apparently in large part because substantial new supplies have been opened up. Unless prices rise considerably in the future ore costs can be significantly reduced, it is unlikely that Tambao ore will be able to compete on the world market.

Given the types of ore at Tambao, it has been estimated that the proportion of sales at different grades would be as follows: 17 percent with a manganese content of 46 percent (standard metallurgical grade); 32 percent with 51 percent manganese; and 51 percent with 57 percent manganese. The prices at which these various grades could currently be sold are difficult to determine, particularly since most manganese ore is sold on long-term contract or is produced by "captive" mines belonging to consuming companies. The spot price of 46 percent manganese ore in the US during July 1970 was approximately 50¢ per unit of manganese content per long ton, equivalent to $22.64 per metric ton. If it may be reasonably assumed that 51 percent manganese ore and 57 percent manganese ore can fetch prices respectively 20 percent and 40 percent higher (or $27.17 and $31.70) and maritime freight charges range between $5 and $6 per ton, the composite f.o.b. price of Tambao ore f.o.b. Abidjan would be approximately as follows:

Percentage of grade shipped	Price f.o.b. Abidjan (in US$)	Total (in US$)
17%	16.64-17.64	282.88-299.88
32%	21.17-22.17	677.74-709.44
51%	25.70-26.70	1,310.70-1,361.70
Composite price for 100 tons		2,271.32-2,371.02
Composite price per ton		22.71-23.71

Thus, on the basis of prices current in mid-1970 it would appear that the composite price at which Tambao ore could be sold f.o.b. Abidjan would about equal the cost of such ore f.o.b. Abidjan without allowing for any profit to the mining company or revenue to the Voltaic Government.

Manganese prices may, of course, rise again. Much will depend on the evolution of steel demand and the availability of manganese ores from other sources. While low manganese prices may force out marginal producers, 1/ other mining companies such as the Groote Eylandt Mining Company in Australia are still increasing their capacity. It is also possible that with even a modest rise in prices some existing mines will find it profitable to expand their output when they can do so with comparatively little supplemental investment.

Mining companies

In the last analysis the exploitation of the Tambao deposits will depend on the willingness of a qualified foreign concern to invest. Union Carbide has displayed some interest in the past, but is apparently not prepared to invest on the basis of current market conditions. When all of the investigations essential to a determination of the appropriate cost of transport have been completed in Upper Volta, the best course for the Government would presumably be to communicate the findings to companies potentially interested in mining the ore. Such companies will then be able to determine their course in the light of the cost of transport and of their own appraisal of production costs and market prospects. However, since the Voltaic Government will have to pledge its limited credit to borrow a considerable amount of money for the railway, it will need in its own interest to make sure that the exploitation of the Tambao deposits will take place on terms giving it substantial revenues.

A PRELIMINARY ASSESSMENT OF THE TAMBAO PROJECT 1/

Several UNDP missions have studied the deposit and have spent, to date, approximately $5 million for economic and technical studies.

The well-proven reserves at Tambao have an ore content of 55% manganese and represent 12 million tons of marketable products.

Railway is main problem

No technical difficulties would be anticipated for the extraction and upgrading of the ore. The project's principal issue of concern would be the problem of railway transportation from Tambao to Abidjan. The present railway goes only from Ouagadougou to Abidjan. New track, therefore, would have to be laid connecting Ouagadougou to Tambao. The cost of the new 350-km track ($28 million) would reduce the return on the project, since the reserves are not very high.

Rate of return

Using conservative estimates for capital 2/ and operating costs, the economic return would be 9.2% for an output of 575,000 t/yr for 20 years and 16.2% for an output of 1 million tons over a 12-year period. The calculations for both cases include the total capital cost of the railway. This last point would be subject to discussion, as the new track most likely would not only serve Tambao but would also serve the local need for transporting passengers, animals and, on occasion, other ore.

Market prospects

The principal current producers of manganese are having no difficulty in meeting the world market demand and, if necessary, could increase their present production. However, the quality of Tambao's ore would make it sufficiently attractive to assure it a place on this market; in addition to its being a high-grade ore (the highest in the world), it has special properties which make it valuable for use in the chemistry field and for dry battery production. A mine located in Ghana which currently produces 300,000 tons of similar quality ore will be closing down in 1977. Tambao could take this mine's place on the market.

Timing

The mining operations at Tambao could not begin before 1978, as, in addition to the construction of new track, better maintenance and the replacement of materials on the existing railway line Ouagadougou-Abidjan ($28 million) would be necessary. The first disbursement would be made in 1976.

In summary, the Tambao project may be considered as a feasible one and deserves consideration.

Remarks: We are presently reviewing the railway proposals, and will continue our consultations with the UNDP, which is now studying the economic

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1/ by the Industrial Projects Department, February 8, 1972.

2/ Capital costs, including railway rolling stock: $18.2 million for an output of 575,000 t/yr, and $24.6 million for 1 million t/yr - to which $28 million would have to be added in both cases for the railway construction costs.

feasibility of the project with the help of consultants. As made clear above, however, the main attraction of the Tambao deposit for the mining companies appears to be the particular quality of the ore but we have no indication whether Union Carbide, which indicated interest at an earlier stage would now make a positive decision, nor do we know the position of other mining companies. The benefits for the country would be small; some 300 jobs on the mine plus those on the railway, and little room for Government taxation; furthermore, it is doubtful that, after completion of the mining project, there would be sufficient traffic to justify the fixed operating costs of the railway.

8.61

F. OTHER SECTORS

Telecommunications: Several development aid agencies are helping Upper Volta in this sector. However, the Government is expected to submit an application for an IDA credit for its next development program. Credits of US $2.0 million in FY 1973 and US $3.0 million in FY 1975 have been retained in the operations program, but that schedule may be a little optimistic.

We are not involved in the power sector nor in any sector in Upper Volta.

9. - SUBJECTS LIKELY TO BE DISCUSSED

A. SUBJECTS WHICH YOU MAY WISH TO BRING UP

We have never had any serious problem with the Voltaics since we operate in their country. Their financial policy is very praiseworthy; it may even have been excessively severe, because it deprived some important government services, such as livestock services, of the minimum funds necessary to operate effectively. There is no serious problem with respect to on-going operations. We have never had to turn down specific requests but we have taken a more reserved attitute towards the Tambao manganese project than the Government would have liked. We do not anticipate that we will have to do so. The only subject which you may wish to bring up is that of education policy. The literacy rate in Upper Volta is very low. However conscious the Government is of Upper Volta's limited resources, they would like very much to catch up with other African countries. They have even made this a policy objective. However, the number of school graduates is already excessive with respect to employment possibilities and we feel strongly that rural education and training should receive priority attention. Please refer in this respect to part 5.E page 03. If the Minister of Education does not feel confident of being able to accomodate the needs of the rural people, perhaps he should divest himself of rural education and give it to the Minister of Agriculture. If we are well informed, this is now being considered.

Education policy

The Government has recently expressed its feelings towards the Bank Group in the letter that President Lamizana addressed to you last December 29, 1971. A translation is attached.

B. SUBJECTS LIKELY TO BE BROUGHT UP BY THE GOVERNMENT OF UPPER VOLTA

The Government of Upper Volta is, to our knowledge, generally satisfied with the assistance they have been getting from the Bank Group, particularly in the last couple of years. (In his recent letter to you extending his invitation to visit the country, President LAMIZANA - see biography - hinted that we had been slow in moving to help his country.) Voltaic representatives often have a humble attitude toward aid donors. When President Lamizana visited the U.S. and met with Mr. Knapp immediately before the signing of the credit for the cotton project in December 1970, he stated that "aid has to be deserved". Since then, the Voltaics may have become a little more assertive but they are likely to remain modest.

From what we know, we see only few problems likely to be brought up by the Government. They are:

Project Manager for RDF

a) The nationality of the project manager for the Rural Development Fund. The Government is highly interested in this project, which will affect the lives of many people and open a new, promising path to large scale development in Upper Volta. They note that the wishes of the population are given recognition in this project. It is probably only natural therefore that they should want the project manager to be Voltaic. However, we have felt from the very beginning of project preparation that project management should be entrusted in the beginning at least to a Frenchman, Mr. de Bagneaux, who has been a very capable adviser to the National Development Bank for seven years and has enjoyed excellent working relationships with the local authorities. The appraisal mission argued with the Government that the project was important not only to Upper Volta, but also to the Bank and all the other countries which might later want similar projects. It was important therefore for project management to be of the highest possible quality. It is hard to refute this argument. On the other hand, it is not the kind of argument which is likely to build up the self-confidence of the Voltaics, of which they do not have an oversupply. You may wish to assure the Government that we want Mr. de Bagneaux replaced by a Voltaic as early as possible.

Tambao project

b) The Tambao project. This is the big dream of the Voltaics, and perhaps more particularly of the Minister of Planning, Mr. Edouard YAMEOGO (see biography) .
Our position with respect to this project is set out in section 8.E.

9.02
A

UNOFFICIAL TRANSLATION

Ouagadougou, December 29, 1971

Dear Mr. President:

After a long period of lull (sic), I am happy to see that the World Bank Group presently shows more understanding and interest in the problems of the development of Upper Volta. I am all the more gratified because, in my desire to give a new impulse to the social and economic development of the country, I took a personal interest in the changing relationship with the institutions you head. The various missions which your experts made to my country and the painstaking and patient exploration work they have done have made possible the identification and financing of some projects which should lead to a constructive and fruitful cooperation.

It seems to me therefore that the dialogue between the Republic of Upper Volta and the World Bank Group, under your leadership, justifies an optimistic view of the future. In my view, you have been endeavoring, since your appointment, to give to our relationship a new and more dynamic orientation. However, I am still convinced that it is absolutely necessary to strengthen this relationship not only between the high officials of the Voltaic Government and those of the Bank, but also and more especially between yourself and me.

More precisely, I remain deeply interested in the search for ways by which my Government could stimulate production and thus raise the standard of living of our populations. In this perspective, my Government has endeavored for several years to achieve the most productive use of our resources within the framework of a policy of austerity which remains our motto.

I am happy to see that the World Bank Group, taking into account our past endeavors, is beginning to take an active and positive interest in my country. This attitude is raising strong hopes which I am sure will soon materialize through financing agreements and the provision to the Republic of Upper Volta of an adequate technical assistance.

I would therefore consider it useful in the present circumstances for you and me to have an opportunity to compare our views about a number of urgent questions and to discuss all problems of common interest. Equally useful would be for you to have the opportunity to see for yourself the realities of Upper Volta, its priorities and possibilities.

It is for all these reasons that I take particular pleasure in inviting you to pay a special visit to Upper Volta. I mentioned this to our Executive Director in the Bank several months ago and I assume he has renewed the invitation.

9.02
B

I hope your workload will allow you to be our guest in the very near future. To this effect and for all practical purposes, I have asked Mr. Mohamed Nassim Kochman, our Executive Director, to act as an intermediary between you and me to determine a mutually acceptable date for this visit to which I attach a very special importance.

I look forward to your reply and assure you, Mr. President, of my highest consideration.

Général Sangoulé Lamizana
President of the
Republic of Upper Volta

Mr. Robert S. McNamara
President of the IBRD
1818 H Street N.W.
Washington, D.C. 20433

10.01

LIST OF BIOGRAPHIES

UPPER VOLTA

Sangoulé LAMIZANA, President of the Republic

Joseph Issoufou CONOMBO, Minister of External Affairs

Antoine DAKOURE, Minister of Agriculture

Marc Tiémoko GARANGO, Minister of Finance (Governor IBRD)

François LOMPO, Minister of Public Works

Gérard Kango OUEDRAOGO, Prime Minister

Mamadou SIMPORE, Director of Posts and Telecommunications

Léopold SIRY, Director of Rural Development

Pierre TAHITA, Director of Planning

Charles TAMINI, Minister of Education

Youl TIGARET, Minister of Posts and Telecommunications

Edouard YAMEOGO, Minister of Planning

Emmanuel ZOMA, General Manager of the National Development Bank

~~Paul ZOUNGRANA, Cardinal Archbishop of Ouagadougou~~

Raoul DELAY, French Ambassador

Max DORSINVILLE, UNDP Resident Representative

Donald B. EASUM, U.S. Ambassador

Michael SCHMIDT, German Ambassador

LAMIZANA, Sangoulé, President of the Republic

Mr. Lamizana was born in Touga in the northern part of Upper Volta in 1916.

He became an officer in the French army in 1949. In 1957 he was promoted Captain; in 1961 Platoon Commander; in 1964 Lieutenant Colonel. He was Commander-in-Chief of the Voltaic Army from 1962 to 1966.

When the Army inherited political power, he became President of the Republic and Chairman of the Council of Ministers. In 1969, he was made a General. In 1970, following the elections, he relinquished the chairmanship of the Council of Ministers.

General Lamizana has a reputation of absolute integrity and is well-known for his modest style of living. He does not reside in the Presidential Palace, but in a simple bungalow.

General Lamizana visited Washington in October 1970 while you were away. Mr. Knapp and Mr. Chaufournier called on him. He is generally acquainted with Bank activities and appreciative of our efforts.

A newspaper article attached to Part 5.B provides a good account of the role that the Voltaic army has held since 1966.

CONOMBO, Joseph Issoufou, Minister of External Affairs

Dr. Conombo was born in 1917 in Tampinko, to the south of Ouagadougou. He received his primary and secondary education in Ouagadougou and in Dakar (Sénégal). He went on to study medicine in Paris and graduated with honors from the faculty of medicine.

During the Second World War, he was a French military officer and was decorated several times.

In 1951, he became a representative from Upper Volta in the French National Assembly and, in 1954-55 he was a member of the Mendès-France Government. In 1956, he founded the Unified Democratic Party (PDU), which later merged with the UDV-RDA.

He was the Mayor of Ouagadougou from 1959 to 1965 and Director of Public Health in the same city from 1965 to 1969. He then practised medicine for one year and returned to political life on the occasion of the December 20, 1970 elections, when he was elected a member of the National Assembly.

Dr. Conombo is an official of the party in power, the UDV-RDA.

10.04
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DAKOURE, Antoine, Minister of Agriculture and Livestock

Mr. Dakouré was born on November 26, 1936 in Ouagadougou. He received his primary and secondary education in Upper Volta and Sénégal.

He attended various military schools from 1960 to 1964.

Under the military regime he at first was in charge of the military Cabinet of the President and was later appointed Minister of Agriculture.

10.04
C

DORSINVILLE, Max H., UNDP Representative

Mr. Dorsinville was born in Haiti in 1910. He studied law in Port au Prince and entered his country's foreign service in 1938. From 1948-54 he was the Secretary General of the Ministry of External Relations. From 1954-62 he represented Haiti to the UN Trusteeship Council. He then joined the United Nations, which he represented in the Congo (Zaire) before becoming the UNDP Resident Representative in Upper Volta in 1968.

10.05

GARANGO, Marc Tiémoko, Minister of Finance and Commerce, Governor of the IBRD

Mr. Garango was born in 1927 in Gaoua, in the south-western part of the country.

After completing his post-primary education, he entered a military career in 1946. As a soldier, he received his secondary education in France from 1948 to 1951. From 1951 to 1959, he participated in military operations in Indochina and Tunisia. He became an officer in 1959. From 1961 to 1966, he studied law and economics in Dakar, Paris and Aix-en-Provence.

In 1965, he was appointed Military Quartermaster.

Under the military regime, he became the Minister of Finance and Commerce of Upper Volta as well as the non-residing Ambassador to the Republic of China in Taiwan.

LOMPO, François, Minister of Public Works, Transportation and Urbanization

Mr. Lompo was born in 1929 in Diapaga, in the eastern part of the country.

He graduated from the Institute for Advanced Studies in Overseas Affairs in Paris.

In 1958-1959, he was Minister of Education. In 1965, he became Inspector General for Finance and Administrative Affairs.

Mr. Lompo is also an official of the UDV-RDA.

OUEDRAOGO, Gérard Kango - Prime Minister and Minister of Veterans' Affairs

Mr. Ouedraogo was born on September 19, 1926 in Ouahigouya, in the northern and poorest part of the country. He received primary education in Ouahigouya and post-primary education in Bamako (Mali). He then entered an administrative career and soon became the Director of the Cabinet of the French High Commissioner in Sénégal. In 1952, he was elected a representative in the regional political body and later in the representative bodies of French Western Africa. In 1956, he became a member of the French Parliament as well as the Minister of Finance of his own country.

After independence, Mr. Ouedraogo was Ambassador in London from 1961 to 1965. From 1968 to 1970, he was Head of the African Affairs Division at the Foreign Ministry. When political activities resumed again in Upper Volta, in 1970, he was elected President of the main political party, the UDV-RDA, and on December 20, 1970, he was elected a representative from Ouahigouya in the National Assembly.

SIMPORE, Mamadou, Director of the Office of Posts and Telecommunications

Mr. Simporé was born in 1936 in Ouagadougou. He graduated from Law School and became an administrator in the Office of Posts and Telecommunications, which he now heads.

SIRY, Léopold Wantissé, Director of Rural Development

Mr. Siry was born in 1935 in Niofoula. He is an agronomist and headed the Office for Rural Development since 1965.

TAHITA, Pierre, Director of Planning

Mr. Tahita graduated in economics and now heads the Planning Office in the Ministry of Planning, Industry and Mining. He is an official of the MLN, the leftist minority party.

TAMINI, Charles, Minister of National Education and Culture

Mr. Tamini was born in 1938 in Ouarkoye, in the western part of Upper Volta.

He obtained a university degree in the Arts (history and geography) and became a professor of history until he was appointed Minister of National Education in 1965.

Under the military regime (1966), he became the Principal of the main secondary school in Ouagadougou. On december 20, 1970, he was elected a member of Parliament with the majority party (UDV-RDA).

He is an official of the UDV-RDA.

TIGARET, Youl, Minister of Posts and Telecommunications

Dr. Tigaret was born on December 29, 1931 in Gaoua, in the south-western part of Upper Volta.

He received his secondary education and graduated from medicine school in France. He is a Doctor of Medicine.

From 1958 to 1967, he completed his training in France and specialized in public hygiene.

From 1968 to 1970, he was in charge of urban health.

Before becoming a Minister, he was an official of one of the political parties.

YAMEOGO, Edouard Moussa, Minister of Planning, Industry and Mining

Mr. Yaméogo was born on June 27, 1935 in Yako. He received his secondary education in Paris, where he then also graduated from the National School of Agronomy, from the National Institute of Agriculture and from the Faculty of Economic Science. He worked as an engineer with the French National Corporation for the Lower Rhône, and later with the American T.V.A.

In 1962, he became Director of Rural Engineering in Upper Volta. From 1963 to 1966, he was successively Minister of Economic Affairs and Minister for National Development. Under the military regime which came into power in 1966, he was Director of Hydraulics and Rural Equipment.

Mr. Yaméogo is not a political figure but a technocrat. He is considered one of the most able Voltaic officials.

ZOMA, Emmanuel, General Manager of the National Development Bank

Mr. Zoma was born in 1934 in Koudougou. He graduated in economics and became the General Manager of the National Development Bank in 1968.

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Country Notes
Department of
State

Upper Volta

AREA, GEOGRAPHY, CLIMATE

Upper Volta is an independent country situated between the Sahara and the Gulf of Guinea in the loop of the Niger River. It comprises 105,900 square miles (about the size of Colorado) on a savannah plateau, 650 to 1,000 feet above sea level. Most of the country lies beyond the humid "rain belt" or "rain forests" which extend some 400 miles northward from the sea.

The land ranges from the greener area of the south with its forests and fruit trees, to the central area savannah with fields, bushes, and scattered trees, to the desert-like sandy areas of the north.

Upper Volta borders the Republic of Niger in the east, Mali in the north and west, and the Republics of the Ivory Coast, Togo, Ghana, and Dahomey in the south.

The country's main rivers, which are unnavigable, flow south toward the Gulf of Guinea, although several small rivers in the east drain into the Niger River. Low hills separate the Black, Red, and White Volta River Basins from the Niger River Basin.

The climate is tropical and seasonal -- warm and dry between November and March, hot and dryer from March to May, and hot and wet the rest of the year. During the cooler weather (December-February) daily temperatures average about 85°F with almost no humidity; nights are pleasant with temperatures dropping sharply after sundown to around 60°.

The heat and humidity of the summer, or "wet" months, can be disagreeable at times. Although the climate varies from year to year, daytime temperatures can climb to well over 100°. The early rains of summer are accompanied by high winds which send clouds of dust billowing across the city. Since homes and offices are air-conditioned, problems of dust and mildew are not serious.

Annual rainfall is about 40 inches in the south, decreasing to less than 10 inches in the extreme north and northeast, where a hot desert wind accentuates the aridity of the region.

Mosquitoes, flies, and a great variety of other insects are present in varying degrees, depending on the season. Snakes are rarely seen near the city and not too often in the "bush."

There are no natural hazards such as earthquakes, or floods, but occasional droughts cause great hardship among the herdsmen and farmers, particularly in the northeastern part of the country.

Temperature and humidity changes make colds, coughs, and sore throats a common but not serious problem.

POPULATION

Upper Volta's population of over 5 million contains 50 distinct tribal groups. The powerful Mossi (about 2½ million members) dominate the country's political and economic life. They are descendents of warriors who carved out a 1000-year-long Empire in the area. During that time they established a rigid, disciplined society that has contributed much to Upper Volta's current political stability. The Emperor of the Mossi, the Moro Naba, still holds court in Ouagadougou.

Other important tribes or tribal groups include the Gourounsi, the Bobos, the Lobi, and the Peuls -- none of them numbering over 300,000. A few thousand Touaregs inhabit the northern regions.

Most of the people live in the south and center of the country where densities in urban areas sometimes exceed 125 persons per square mile. As a result of this population pressure, rare in Africa, thousands of Upper Voltans migrate annually to Ivory Coast and Ghana for seasonal agricultural work and for longer term employment.

Few Upper Voltans are of non-African descent. Europeans probably number under 4000, less than one-tenth of 1% of the population.

French is the official government language, the language of school instruction, and the language in which commerce, aside from native barter, is conducted. Each tribe has

its own principal language and may have several dialects. It is not unusual to find people in the "bush" areas who speak only their tribal language. But the language of the Mossi people, More, has become almost a lingua franca in many parts of the country.

Most people -- perhaps three-fourths -- remain strongly attached to fetishism and animism. The next largest group are converts to Islam -- about 20%. About 5% are Christians -- most are Roman Catholics, with a small number of Protestants.

Since many of the Upper Voltan elite have been educated in Catholic-run schools, Catholicism exercises a significant influence on Upper Voltan life.

Literacy and per capita income are among the lowest in Africa, and subsistence agriculture is the standard means of livelihood.

Traditional society in Upper Volta is family centered. The basic unit is the extended family, comprising not only a man, his wife, and children, but also adult sons and their immediate families. The senior living male is usually recognized as the family head, and he determines matters of descent and inheritance, controls the use of resources, and settles family disputes. The status of an Upper Voltan woman is inferior to that of a man in many respects.

Modernization is limited to the larger cities. Most Upper Voltans are too concerned with the struggle for existence to become involved in issues that do not affect them directly. The new elite, many trained in the French-established educational system, live in Western-style houses, wear Western and Voltan dress, eat and drink the foods of Europe and Africa, and follow cultural standards of both Africa and Europe (especially France).

PUBLIC INSTITUTIONS

Political Background. Upper Volta was under French control from 1896 until March 1959, when it became an autonomous state of the French Community under a government headed by Maurice Yameogo. Upper Volta became fully independent under Yameogo's leadership on August 5, 1960, and allowed its community ties to lapse but remained within the French political and economic orbit. It maintained its close associations with the Ivory Coast, Niger, and Dahomey -- other members of the so-called "Council of the Entente."

Yameogo established a one-party regime, but failed to retain the support of students, labor unions, the civil service, or the peasants. Although the party managed to reelect him by an overwhelming majority on October 3, 1965, he was compelled to resign 2 months later in the face of widespread discontent and popular protests against his wasteful and repressive regime. Lt. Col. (now Brig. Gen.) Sangoule Lamizana, Army Chief of Staff, assumed the functions of chief of state, suspended the constitution, and instituted a military government. An unsuccessful experiment with renewed political party activity in the summer of 1966 ended on December 12, 1966, with the announcement that military rule would continue until December 1970.

Ex-President Yameogo was convicted of embezzlement by a special court in May 1969 and sentenced to a heavy fine and 5 years' hard labor; the sentence was reduced to 2 years on August 5, 1969.

Constitution and Government. Upper Volta's constitution was suspended by the military government and no constitution is now in effect. A new constitution is being considered for eventual adoption. The present regime's power rests with the military, and statements of government policy have occasionally been issued in the name of a body called the Supreme Council of the Armed Forces. Executive authority is exercised by General Lamizana, acting as President of the Republic and President of the Council of Ministers, with the aid of a cabinet of military and civilian members. A Consultative Committee with something of a representative character was set up early in 1966 to advise the government.

Foreign Relations. A member of the UN, the OAU, OCAM, and various West African regional organizations, Upper Volta held to a pro-French and pro-Western position throughout Yameogo's presidency. The present military government has maintained this general orientation but has also established diplomatic relations with the USSR, Poland, Yugoslavia, Romania, Czechoslovakia, Hungary, and Bulgaria. The Soviet Union has an embassy in Ouagadougou. Economic assistance considerations play an important role in Upper Volta's foreign relations.

Current Issues. Economic and cultural modernization and development of a genuine national consciousness are Upper Volta's greatest needs. Its chief immediate problem is to find a political framework within which such a process can go forward. The present military regime indicated in August 1969 that it planned to adhere to its self-imposed deadline of late 1970 and would permit a gradual resumption of political activity from late 1969 onward.

Political Parties. Political parties have not been formally outlawed by the military government, but play a restricted role at present as a result of the ban on political activities imposed in January 1966, reimposed in September 1966, and finally lifted on November 20, 1969. Electoral campaign activity is scheduled to begin again no earlier than the last quarter of 1970. The dominant party of the pre-1966 period was ex-President Yameogo's Voltaic Democratic Union (Union Democratique Voltaique -- UDV), a portion of which switched along with Yameogo in 1957 to the African Democratic Rally (Rassemblement Democratique Africain -- RDA) founded by President Felix Houphouet-Boigny of the Ivory Coast. Most of the country's other parties disintegrated once the RDA-UDV had established its ascendancy in the early 1960's, although some activity was maintained by the National Liberation Movement (Mouvement de Liberation Nationale -- MLN), the African Regrouping Party (Parti du Regroupement Africain -- PRA), the Popular Action Group (Groupement d'Action Populair -- GAP), and PAI (Parti Africain d'Independence). The Voltan Government recognizes all of these parties as official except the PAI.

Parliament. The National Assembly, a unicameral body of 50 members elected November 7, 1965, and consisting of members of the ruling UDV, was dissolved on January 5, 1966.

Cabinet. The Council of Ministers, originally appointed January 4, 1966, and reorganized April 6, 1967, includes seven military and five civilian members in addition to Gen. Sangoule Lamizana.

ARTS, SCIENCE, AND EDUCATION

The artistic activities of the Voltan people are centered on their music, dancing, wood sculpture, and, to a lesser degree, painting. The small National Museum in Ouagadougou displays indigenous artistic works as well as representative items from the daily life of the country's various ethnic groups. There are occasional art shows by local artists, but these consist of nontraditional artistic expressions such as Western-style painting, sculpture, and print-making. A selection of carved wooden masks and figures is available for purchase by collectors; but good pieces are rare and expensive.

At the Catholic cathedral in Ouagadougou, the mass has been translated into More, the language of the Mossi people, and is sung using native rhythms.

The world of science is a small one in Upper Volta. Since there is no university science faculty or industrial complex, few research or related activities exist. Upper Volta does have specialized research centers. Several agricultural research and extension services are variously sponsored by the French Government, semiprivate organizations, and the Upper Voltan Government. The Medical Entomology Center and the Muraz Medical Center perform research on tropical diseases in Bobo-Dioulasso, Upper Volta's second largest city. The Voltan Center for Scientific Research coordinates the social science studies of Voltan as well as expatriate researchers.

Upper Volta has the beginnings of a university. The Centre d'Enseignement Superieur provides 2 years of university study (humanities only) after which students go on to Abidjan, Dakar, or France for advanced education. About 200 students were enrolled at the Centre in 1969-70. A few French students attend but no American students at present. About 240 Voltan students study abroad each year, but only occasionally in the US.

About 40 secondary schools in the country provide education for some 8500 students. A few of these schools are run by the Catholic church. Many teaching positions are filled by expatriate instructors.

Government enrollment figures indicate that 92,000 students are studying at the elementary level. About 10% of the children of primary school age have the opportunity to attend school. From 10% to 12% of the national budget is spent on education.

COMMERCE AND INDUSTRY

Upper Volta is predominantly an agricultural country, with roughly 95% of its people earning their livelihood from farming and livestock production. More than half the country's exports consists of live animals -- cattle, sheep, and goats -- which are driven on the hoof to neighboring coastal countries and sold.

Chief crops are millet, sorghum, peanuts, and karite (shea nuts). Cash crops include peanuts, karite, cotton, and rice. The government attaches high priority to improving the agricultural sector and is working to establish more cash crops, stabilize grain supplies and prices, provide adequate supplies of water, etc.

At present, Upper Volta's mineral resources are not being exploited commercially, but manganese mining operations around Tambao in the remote northeastern region may begin in the next few years. A study financed by the UN Development Program has revealed extensive deposits of high grade manganese ore and commercially exploitable limestone in the Tambao area. The stumbling block is

transporting the minerals out of the area. This may be solved eventually by extending the railroad from Ouagadougou to Tambao.

Because it is landlocked, and because of the limited buying power of the Voltan consumer, Upper Volta is one of Africa's least industrialized nations. But in the past several years, it has made gains in textiles and food processing. A large textile factory has begun production at Koudougou, and cooking oils, beer, cigarettes, and soap are also manufactured. Bicycles, too, are assembled in Upper Volta. Production of shoes, sugar, paint, and flour should begin within the next couple of years, and other industries are not much further off.

The country has had an unfavorable trade balance since independence, but in 1968, for the first time, exports amounted to more than half the value of imports. Manufactured goods such as electrical equipment, machinery, and vehicles are imported, as are sizable quantities of cotton cloth and foodstuffs. Upper Volta's chief export customer is Ivory Coast (48.3% in 1967), followed by France and Ghana (each 13.5%). Most imports are from France (44.9% in 1967), with Ivory Coast (20.9%) second. Upper Volta's exports to the US are negligible, but in addition to commercially exported machinery and used clothing, the country has received US surplus food, road maintenance equipment, and medical supplies through A.I.D.

Upper Volta is a member of the franc zone and is an associated state of the European Economic Community. Her traditional dependence on France and Europe is slowly being modified by participation in regional economic organizations. Together with Ivory Coast, Niger, Dahomey, and Togo, Upper Volta belongs to the Entente Council, which administers a guarantee fund for development project loans benefiting the member states. Steps have been taken toward wider regional groupings as well.

France and the Common Market are chief sources of foreign assistance, although significant contributions have been made by the US, the Republic of China, West Germany, and Israel. International organizations have also assisted, and the UN Development Program has an office in Ouagadougou.

The Upper Voltan Government has a 4-year economic plan (Plan-Cadre, 1967-1970) emphasizing rural and urban development. The government's efforts are limited by a small financial base and must depend on capital from outside sources to finance economic growth. The present military government has adopted a policy of fiscal austerity, and it succeeded in producing small budget surpluses for 1967 and 1968, contributing to an atmosphere of renewed confidence in the economic potential of the country. The government welcomes private investment and protects ownership of private property.

Most Voltan salaried workers are organized into trade unions that are influential in the nation's political life. Labor-management relations have generally been good, in spite of the financial sacrifices imposed on wage earners as their part of the austerity program. Most wage earners are employed by the government.

TRANSPORTATION

Roads are generally adequate during the dry season, but the rains (June to September) make many impassable, and repairs often take several months. Paved roads are found only in the main towns and a stretch running from Bobo-Dioulasso to the Malian border.

The number of taxis permitted to circulate in Ouagadougou is limited. While it is not always easy to "hail a cab," they are usually available in the downtown area. Fares are based on distance. A trip within the city may cost from 20¢ to 80¢, with higher rates at night. There is no tipping.

Trains run twice daily between Ouagadougou and Bobo-Dioulasso and on to Abidjan 733 miles away on the coast once a day. The entire trip takes 27 hours, sometimes longer. Some of the more adventurous members of the Embassy have considered it one of the highlights of their tour. Accommodations are acceptable, particularly in first-class, where small compartments are made up for sleeping at night. Food is sold on the train, but since prices are high, Americans usually carry a picnic hamper and Thermos.

COMMUNICATIONS

Telephone and Telegraph

The local telephone dial system works fairly well but service is often interrupted, especially during the rainy season. Long-distance calls within the country and to certain other African countries can be hard to place at times. Radiotelephone calls to the US cost about $13.40 for 3 minutes.

Radio and TV

Ouagadougou and Bobo-Dioulasso both have radio stations. The Ouagadougou station broadcasts on weekdays 6 to 8 am, 12 to 2 pm, and 5 to 11 pm; Saturdays, 6 to 8 am and noon to 11 pm; Sundays, 7 am to 11 pm. Most broadcasts are in French with the remainder in various vernacular languages. There are normally several hours of Western-type popular and semiclassical music each day. Shortwave broadcasts such as the Voice of America can also be received here. Locally purchased radios are expensive. Bring your radios to post; they should be battery powered or designed for 220v current.

As an economy measure, TV was prohibited in Upper Volta for 3 years, but was reintroduced in January 1969. The one station is in Ouagadougou and broadcasts about 2 hours each Wednesday and Saturday evening beginning at 7:00. Programing is in French and features youth programs, educational films, news broadcasts, and movies.

Newspapers, Magazines, and Technical Journals

Few English-language books, magazines, or newspapers are sold in Ouagadougou.

The only newspaper published in Upper Volta is the weekly French-language Carrefour Africain. Both Carrefour Africain and a daily news leaflet, Bulletin Quotidien (also in French), are published by the government and draw on Agence France Press, UPI, Reuters, and TASS for most of their international news. An unofficial daily newssheet, La Nouvelle, has been published in Ouagadougou since late 1969, and there is a weekly newssheet, L'Aurore Bobolaise, published in Bobo-Dioulasso.

HEALTH AND MEDICINE

Medical Facilities

A 600-bed hospital in the city is staffed by French and Voltan doctors. Minor problems can be taken care of here on an outpatient basis, including laboratory work, X-rays, minor dental care, minor surgery, and simple orthopedics.

Major dental work can be done in Abidjan, Ivory Coast.

Ouagadougou

Ouagadougou (pronounced WAH-GAH-DOO-GOO) is in central Upper Volta about 500 miles north of the Ghanaian coastline. The city's population is approximately 100,000; 2000-3000 are European, mostly French. The city has tree-lined streets and much European and "African colonial" architecture.

Three hotels are normally used by American visitors. The best is the Hotel Independance which is air-conditioned and has an Olympic-size swimming pool and European management. The Buffet and the Central are small hotels, containing no more than a dozen rooms and not all are air-conditioned. Americans usually stay at the Hotel Independance.

FOOD

Meat, Poultry, Eggs. Most kinds of meat are available here, either imported or of local origin. Local meats (beef, lamb, mutton, pork) are generally of good quality and reasonably priced. Besides several butcher shops, a section of the public market is devoted to the sale of meat. French butchers here also make their own fresh sausages and fair patés. But some items, such as bacon, ham, seafood, and veal, are imported and expensive.

Poultry sold at the markets is tough, stringy, and gamy. French poultry is readily available but expensive. Two large poultry farms have been established, one French and one Voltan.

Local chicken and guinea hen eggs are of good quality and cost about $1.08 a dozen. Some spoilage occurs since the eggs are seldom refrigerated. It is wise to buy only from known sources. Guinea hen eggs have a higher spoilage rate.

Fresh Fruits and Vegetables. Seasonal local vegetables are good and include potatoes, green beans, lettuce, green peppers, carrots, eggplant, peas, and turnips. Lettuce, cauliflower, beets, and other vegetables are flown in from France and North Africa. Local fruits include oranges, limes, avocados, papayas, guavas, pineapples, bananas, grapefruits, mangoes, purple grapes, melons, and strawberries. Imported fruits include apples, peaches, plums, cherries, etc. Imported items are expensive and are sometimes bruised in transit.

Dairy Products. Fresh milk is not produced locally, but local powdered whole milk is sold. French bottled milk, pasteurized and sealed, (similar to US canned whole milk) is available. One brand has a particularly good flavor, especially when chilled.

Imported butter is available, as are margarine, yoghurt, fresh cream, and a good selection of the excellent French cheeses. All these items are expensive, though local yoghurt is inexpensive and usually very good.

Bakery Products. Two good French bakeries provide a variety of fancy pastries, made-to-order cakes, and ice cream (extremely expensive), as well as French bread, long and round loaves, rolls (on order), and candy. Dark (whole wheat and rye) bread is also made.

Tinned and Packaged Foods. A fairly good selection of French tinned foods is sold in Ouagadougou stores (expensive); some prepared foods, such as Ravioli, Cassoulet, sausage, and sauerkraut, are in good supply. Fruits are more limited in variety. Tinned juices (orange, grapefruit, and pineapple) are

available and also a good selection of jams, jellies, and honey, but no syrups are available locally.

French baby foods are available in fair supply and variety (expensive).

Whole coffee, instant coffee, and cocoa are sold. There are few tinned meats, corned beef, strasbourg sausages, but usually ample supplies of tuna fish, sardines, mackerel, herring, and anchovies. Also olives, pickles, vinegar, mayonnaise, peanut and olive oil, certain prepared sauces such as bearnaise, and tomato paste are stocked by the stores handling European food products. Items such as catsup, Worcestershire and tabasco sauce cost about $1 a bottle. A few dried vegetables are available and you can find dried raisins, apricots, figs, and coconut at times. Most forms of pasta are stocked, as are dried soups, pudding, and ice cream mixes. Good white sugar is available, though often only in cubes; brown sugar is not sold. Dry cereals are seldom available. Chocolates, chocolate bars, and hard candies are stocked, but chocolate products are expensive.

Flour is of poor quality, requiring almost half again as much per recipe as the better US all-purpose flours. Fresh yeast can be purchased from the bakery, but no dried yeast, and the French baking powder, when available, does not compare to US double-acting varieties.

The picturesque public market has a large variety of herbs and spices so finely powdered that much taste and aroma have been lost. From France comes dried thyme, bay leaf, sage, chervil, and savory, in bulk, and powdered seasonings such as caraway. Fresh parsley is almost always available.

CLOTHING

Women should have a large supply of dresses, including many inexpensive cottons. (Wearing miniskirts has been outlawed by a Voltan Government decree. Women over the age of 12 years may not appear in public wearing dresses shorter than the tops of their knees.) Men should bring six wash-and-wear suits (one or two in dark colors for evening and ceremonial wear).

Since Ouagadougou has no dry-cleaning, bring mainly wash-and-wear clothing; items suitable for a Washington summer are fine. The sun is hot during the day, and dark colors are usually worn only at night.

Hats are rarely worn. Women might bring one for the occasional afternoon tea, for a wedding, a funeral, or church service. Attractive storm hats and colorful Voltan sun hats can be purchased here.

There are occasional "black-tie" affairs (both white and dark tuxedoes are popular), need "white-tie." Tropical weights are recommended. For women, elegant, washable, cocktail-length dresses (possibly in some silk-like synthetic) are suitable. Floor-length evening gowns are required for the rare Presidential affair.

Dress for most African women, including the elite, consists of a sarong-like skirt, a blouse, and a transparent "booboo" -- usually a beautiful flowing, full-length gown.

Men dress in a variety of costumes, including a full-flowing gown (usually white) worn over baggy pants and a matching blouse-shirt. Most material is imported from Europe or the Ivory Coast, but one type of cloth is woven here in strips, usually white and indigo, with colored designs. Originally made to wear, the cloth has become popular for wall hangings, bed covers, curtains, etc., and can be purchased throughout Upper Volta.

RELIGIOUS ACTIVITIES

There are five Roman Catholic churches in Ouagadougou, and Mass is said in French and More. The one Protestant church is Assembly of God; services are held in French and More, and on occasion in English, if requested.

There is also a French missionary-sponsored Baptist church. Many Catholic churches and missions are found throughout the country, as are a few Protestant congregations. African clergy, Roman Catholic and Protestant, are in charge of these churches. Upper Volta is proud of the fact that one of its sons was named a Cardinal in 1965, the second black African to be so honored and the first in the French-speaking parts of Africa. The Cardinal resides at Ouagadougou.

Touring

One of the most interesting places to visit in Upper Volta is the game reserve at Arly, which connects with the Niger "W" reserve. Within these thousands of acres can be seen a great variety of wild animals, including several types of antelope, baboon, wild boar, water buffalo, and hippopotamus in two of the lakes. Antelope, wild boar, lion, elephant, and buffalo can be hunted at times in the non-prohibited areas.

The game reserves contain campements -- round, thatched-roofed huts with modern bathrooms and electricity. Good food and cold drinks are served in a central dining room. Campements are linked with each other and with Ouagadougou by radiotelephone. The reserve and hunting areas are 6 to 8 hours by car from the capital and reservations must usually be made in advance.

Other points of interest lie in the south and include Bobo-Dioulasso, where Americans and others enjoy an occasional weekend. It is notable for its light industry, its variety of gardens, fruit trees on the street, and its safe "swimming hole" -- a small clean stream near the city. The city was once the commercial center of the country and the main garrison for French forces.

The relatively rich Banfora region has interesting scenery, two splendid waterfalls, and fascinating native dancers. It is an important agricultural center. Between Banfora and Gaoua to the east is an interesting ruin resembling a medieval city. The walls, some two stories high, are estimated to be 4 centuries old, yet no one knows who built the city.

Those who fly over the area say there are other lesser ruins within a 40-mile arc.

A 2-hour drive north of Ouagadougou is Ouahigouya, one of the kingdoms of the former Mossi empire. It was the base from which the Mossi warriors of Yatenga defeated the Mandingo Emperor's troops and sacked Timbuktu in 1333.

Entertainment

Two open-air cinemas offer a limited variety of recent, good films and a multitude of "blood and thunder" B pictures, all in French. Many have French dubbed in. Tickets cost 75¢ to $1.25 and can be hard to get for popular films. Besides the cinemas, the Franco-Voltan Cultural Center offers films and other cultural presentations.

An occasional cultural presentation from one of the countries represented in Upper Volta provides cultural activity, such as a German symphony orchestra, a US jazz band, a French theater play, or a Soviet vaudeville troupe.

Religious and tribal ceremonies, folk dancing (which varies widely from district to district), the tam-tams, and other national cultural activities can provide a new and interesting substitute for concerts, plays, and the opera. The ceremonies at the palace of the Moro Naba, Emperor of the Mossi, are extremely interesting.

An annual series of fairs held around the country provide fascinating opportunities to see the dances, handicrafts, agricultural produce, livestock, and commercial and industrial activity away from the capital.

Two parades are held each year with workers, military units, school children, athletes, and others marching; a colorful fireworks display follows each parade.

There are many Moslems in Upper Volta and some of their religious festivals are well worth attending. Photographs may be taken, at least in the larger centers,

You will find willing subjects for photography among almost all the men. But many women object to being photographed and will cover their faces and hide their children. In some bush villages such attempts to take photographs can lead to incidents.

OFFICIAL FUNCTIONS

Nature of Functions

Official functions range from rare "white tie and tails" affairs at the President's Palace (at which all but the President and chiefs of mission wear "black tie" or native dress) to the less formal sit-down dinners and semi-formal buffets or receptions and cocktails.

Official functions are mainly "sit-down" dinners or informal cocktails and buffet receptions held outdoors at which "mechoui" (roast sheep or goat) or a supper is served.

Depending on the formality of the affairs, dress is either dark suit and short dinner dress or sports wear (sport shirts and short, gay, but less dressy, dinner dresses).

Entertaining picks up during the cool, dry season (mid-November through mid-February) and drops off with the hot, rainy season. As mentioned above, the preference is for outdoor, garden-type entertaining which is generally more comfortable than indoor functions.