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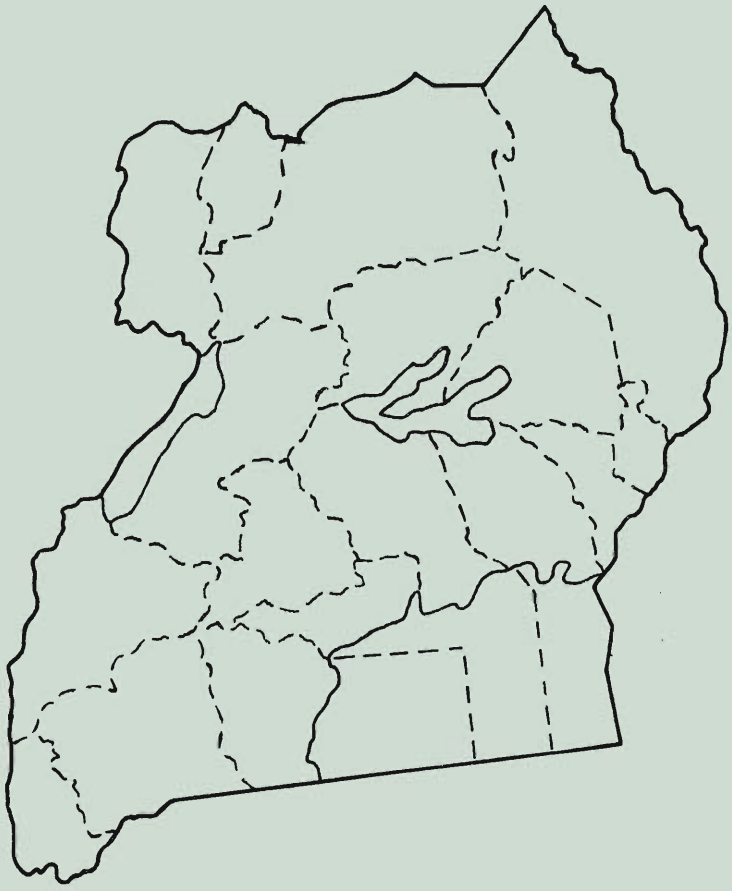
Eastern Africa Country Profiles

UGANDA



November, 1980

Program for International Development
Clark University
Worcester, Massachusetts 01610

CP6

EASTERN AFRICA COUNTRY PROFILES

COUNTRY PROFILE #6

UGANDA

Leonard Berry

Ellen Hughes-Cromwick

1980

Eastern Africa Regional Studies are prepared on behalf of the United States Agency for International Development, under contract by:

Program for International Development
Clark University
Worcester, Massachusetts 01610
USA

November, 1980

"...Uganda? A lovely country. Cool, three to four thousand feet up, and people say it's like Scotland, with the hills. The British have given the place the finest administration you could ask for. Very simple, very efficient. Wonderful roads."

V.S. Naipaul

A Bend in the River

ACKNOWLEDGMENTS

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Any comments or corrections concerning the document will be gratefully appreciated.

FOREWORD

This country profile of Uganda is prepared as one in a series of Eastern African country profiles. They come in response to a request by the United States Agency for International Development to compile succinct statements of principal development issues along with an analysis of the distribution of poverty. The study involved not only a review of current literature and the scant data base for the last six to eight years, but also discussions with several who have recently completed field visits to Uganda where contact with both host government officials and mission personnel was augmented by direct personal observation and information gathering.

Other country profiles in the series have been prepared for Sudan, Tanzania, Kenya, Somalia, Ethiopia, and Djibouti.

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1. Introduction

This profile of Uganda presents an introduction both to the country and the development issues that need to be addressed. Uganda is unique in Eastern Africa. It has a highly productive agricultural environment for local food crops, export crops, and livestock. Yet events of the last decade have crippled one of Africa's most sophisticated educational, social and commercial infrastructures and left but a shell of what once remained. Further, the recent war and political upheavals have eroded the earlier governmental stability which had been a hallmark of the nation as well as the region. Finally, the collapse of the East African Community has left Uganda a land-locked nation with almost total dependence on access through either Kenya or Tanzania. Thus, a development profile of Uganda in 1980 must be viewed in the context of continued uncertainty in politics and economics and the concommitant uncertainty of development priorities for the nation as a whole.

At the writing of this profile, there is acute famine in the north; currency inflation and black marketeering (magendo) in the cities (especially Kampala); skirmishing in the northwest; and almost a total breakdown of social and health services throughout the entire nation. On the other hand, Uganda is a resilient land with an industrious people who have survived earlier national traumas and who are bearing up well in the midst of the current difficulties.

In rural Uganda, some parts of life go on much as they have for many generations. Fields are planted, livestock herded, coffee picked, and meals prepared. Yet the infrastructure is not working. Marketing boards do function so magendo takes over; roads and local transport are almost at a halt so much harvested food lies rotting or is never even picked; schools hardly operate so any education is received by "payments" to the already paid instructors; hospitals have no equipment or medicines so health needs go untreated.

This overview is presented from three different but overlapping viewpoints: (1) As a general overview, the history, natural resource base, and cultural background are introduced so that the specific issues subsequently raised are placed in context; (2) the developmental issues that face Uganda are examined in the light of current affairs, both internally and externally; and (3) the specific manifestations of poverty in Uganda are presented.

This profile takes on special significance for Uganda as the nation is now engaged in the process of picking up the pieces and building anew. In that the process involves both rehabilitation and development, this paper may be of value.

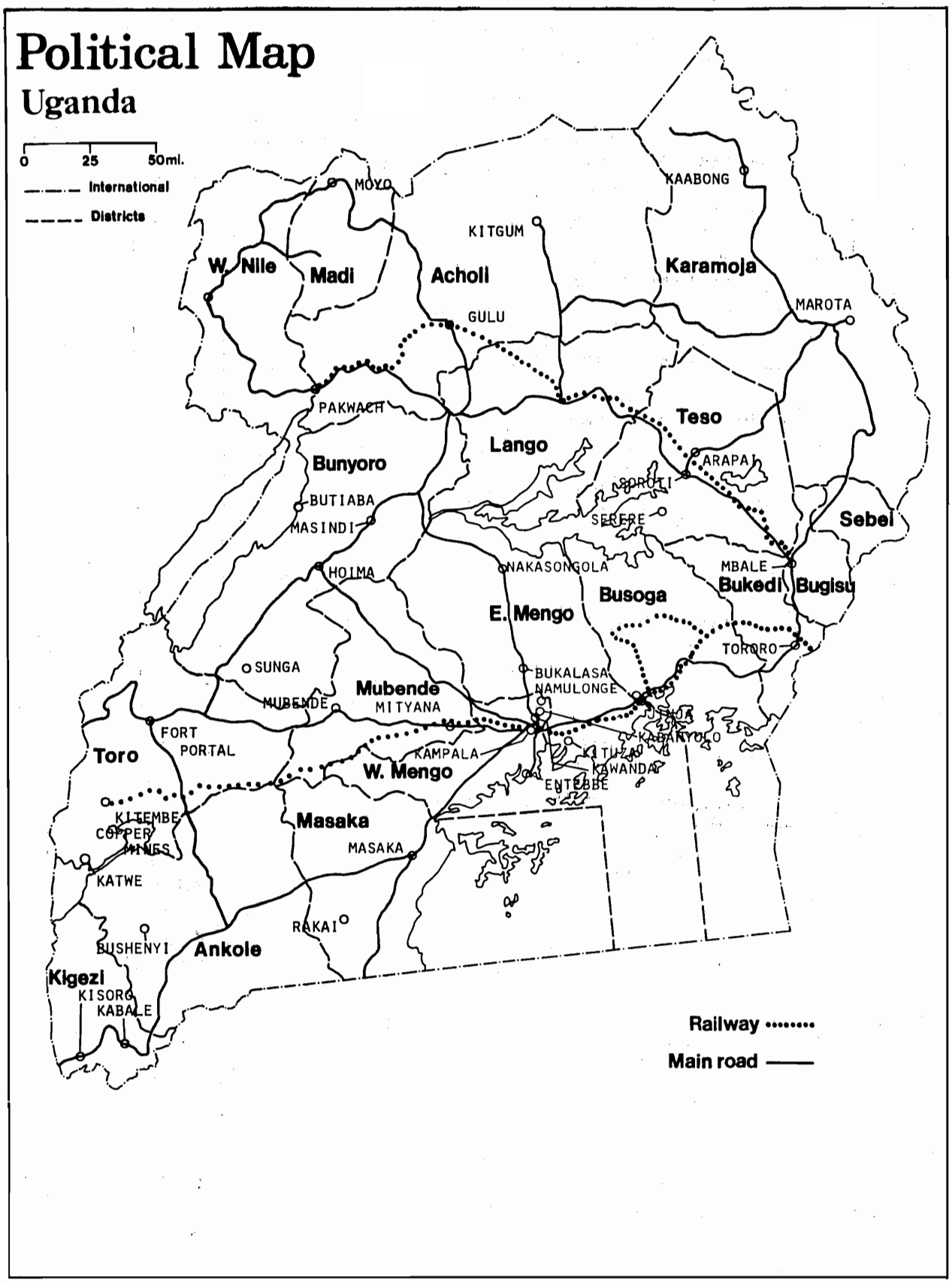
2. Uganda - The Background

2.1 History and the Evolution of the Agricultural Economy

Recent estimates suggest that the 1980 population of Uganda is between 12 and 13 million, though the disorders of the last two years have made accurate projections difficult. The 1969 census counted 9,549,000 people; in 1954 the count was 6,537,000. Estimates from earlier years place the 1921 population at about 3.4 million and the 1948 figure around 5 million. There has obviously been a remarkable change in the number of people involved in the predominantly agricultural economy of Uganda, perhaps 4 times as many now as sixty years ago. Some aspects of this growth are dealt with under the development issues. This background review examines some of the characteristics of the population and the pattern of agricultural change over the 60-70 years.

Most Ugandans come from one of four groups. The largest group, about 65 percent, are Bantu language speakers These include the Ganda (over 1 million people), the Iteso, Banyankare and Bosogo. The Nilotic peoples make up almost another sixth of the population as do the Nilo-Hamitic groups, both of whom predominate in the north and east. Also in the north is a smaller Sudanic group. The broad ethnic diversity of Uganda is further complicated by considerable numbers of Rwanda and Burundi peoples who work in Uganda. Before the massive expulsion of Asiatics in 1972-

FIGURE I


Political Map
Uganda
0 25 50mi.
International
Districts
MOYO
KAABONG
KITGUM
W. Nile
Madi
Acholi
Karamoja
GULU
MAROTA
PAKWACH
Teso
Lango
Bunyoro
ARAPAI
SOROTI
BUTIABA
SERERE
Sebei
MASINDI
HOIMA
NAKASONGOLA
MBALE
Busoga
Bukedi
Bugisu
E. Mengo
TORORO
SUNGA
BUKALASA
NAMULONGE
Mubende
MITYANA
MUBENDE
JINJA
KABANYOLO
FORT PORTAL
Toro
KAMPALA
KITUZA
KAWANDA
W. Mengo
ENTEBBE
KITEMBE
COPPER MINES
Masaka
MASAKA
KATWE
RAKAI
BUSHENYI
Ankole
Kigezi
KISORO
KABALE
Railway
Main road

-73, there were about 75,000 people of Indian and Pakistani origin in Uganda.

Uganda political and ethnic organization was unusual in that it included several kingdoms, the most important being the powerful kingdom of Buganda. Buganda was powerful before Britain gained colonial control. The kingdom maintained its supremacy during the colonial period and together with the smaller kingdoms of Bunyoro, Toro, and Ankole, received special relationships with the federal government on independence in 1962. Not least of these relationships was the appointment of the hereditary Kabaka or King of Buganda (Sir Edward Frederick Mutesa II) as President of Uganda. This special power of one cultural group was changed dramatically in February 1966 when Prime Minister Milton Obote suspended the constitution and took over control of the powers of both offices.

The various cultural groups in Uganda have a range of different histories and have worked together with varying degrees of success. The Buganda have generally regarded themselves as a more advanced and ruling group and have backed this contention by becoming a large part of the educated modern elite of the country. The Karamoja, on the other hand, have been regarded as a separate group from others in the country. Their pastoral, nomadic livelihood contrasts sharply with the rest of the country. The other groups have varying degrees of cooperation or rivalry with the Buganda. People from the north of the country (Nilotic

and Nilo-Hamitic groups) have tended to form much of the police and military - and in Uganda the army has for long been a potent force in politics. That force has most often been aligned against the Buganda majority.

This pattern of competition for power is long lasting and has an important bearing on many aspects of Ugandan life. As agriculture is the backbone of the Ugandan economy, it is appropriate to review the salient issues of the development of agriculture as a factor in the cultural and economic differentiation in Uganda.

In traditional practice, rotational farming was common with most systems cultivating for 3 or 4 years, followed by 8 years or more of fallow. Population in the 19th century was perhaps 2.5 million and land was not short. After all Uganda has 94,000 sq. miles of land with more than 30" of rainfall, most of which is suitable for arable agriculture. By way of comparison, this is twice as much land as is available in Kenya with 30" of annual rainfall.

When the British protectorate was formally proclaimed, the Buganda alliance with the British enabled them to make a separate agreement with the British. Significantly, the agreement dealt with politics and land. Over 9,000 sq. miles was allocated to the Kabaka and his chiefs as freehold (Mailo) land. The land allocated to the Ganda include a large area formerly claimed by the Bunyoro.

From this favorable base, the Ganda were able to develop a strong commercial farming component in their agricul-

ture without the barriers of the traditional land tenure system. However, in the process the Ganda political hierarchy lost much of its internal power of political patronage associated with land; there was a gradual change from patron-client to a landlord-tenant relationship. The process also began (or consolidated) the economic differentiation in Uganda as the British did not develop similar agreements with the other Ugandan kingdoms.

Uganda was distinguished by the early spread of cash crops to peasant farmers, especially in Buganda and by 1914 there was a well established production of cotton. This happened through a well documented coming together of several interests: industrialists in Britain, the colonial government in Uganda, the Christian missions and the local Baganda, especially the chiefs who actively promoted cotton cultivation. Because of this rapid local adaptation, the pressure for white settlement was less, though it was only the world economic slump in 1921 which finally turned the tide against major white settlement.

This left the way open for Buganda and Eastern Province to develop widespread peasant cash crop production. Farmers received seed and advice; markets were well organized. There was little change in the farming technology used and little change in yeilds per hectare over the period but total production increased steadily. This was a period when the economic well-being of these two cash crop areas improved steadily while that of the rest of the country lagged behind.

However, several structural problems also became evident in Buganda and Eastern Province. Foremost among these was the gradual dissipation of the enthusiasm for change among the Buganda. A major factor in this was that the Buganda were kept firmly out of the processing and marketing sectors which became the prerogative of Asians and Europeans. Also there was a gradual change in the tenancy rules in Buganda, with the peasant farmers becoming de facto owners of the land they farmed. Although there were positive advantages to this system, it also meant that neither the farmer, large landholders (the chiefs), or the peasant farmers were able to make significant changes in land distribution or use. A kind of semi-prosperous stagnation set in.

It's important to remember, in modern Uganda, that the northwest and northeast of the country went through no such process; instead there was a semi-deliberate colonial policy to use these areas as labor reserves for:

.... peasant cash crops;

.... labor on sugar plantation, and

.... government unskilled labor.

By 1925, cash crops were being discouraged in the north though obviously som were grown. Table 2.1 illustrates the situation.

TABLE 2.1

COTTON ACREAGE

	Nation	Buganda & E. Province
1919-20	162,000 acres	137,000
1928-29	699,000 acres	576,000

The "outlying areas" share of cotton rose only to 20 percent of the national total in 1955 when there was a switch towards coffee in parts of Buganda.

The economic differential between different parts of the country obviously has a basis in the differing crop potentials of the areas, but these were reinforced and exaggerated by colonial policies. The result of these complex forces can be summarized in a table of per capita income from cash crops in 1959.

TABLE 2.2

PER CAPITA INCOME FROM CASH CROPS
(in shillings)

	1959
Buganda	174
Lango	60
Teso	60
W. Nile	28
Ankole	11

After World War II there was a general government effort to redress some of the imbalance. The colonial government set out six main avenues of attacks.

.... expanding production of existing cash crops,

.... diversifying production,

.... stimulating the more efficient farmers,

.... making tractor services available,

.... instituting land registration,

.... encouraging large scale farming.

For a variety of reasons these efforts met with limited success. The expansion of production of existing cash crops appeared to be successful in the steady increase in the production of arabica coffee, but coffee production rose mostly as coffee was substituted for cotton; yields did not increase and even the high prices for coffee did not result in the expansion some had thought likely.

Diversification included crops like tobacco, groundnuts, and sesame in the north and there was a significant growth of cash crops in some areas, especially Bunyoro and West Nile. But this served mainlyto lower the rate of growth of the disparities. The program to stimulate more efficient farmers worked in favor of the Buganda who had a head start anyway. Land registration may have been some help in the provision of credit to small farmers but it did not produce a major change in the pattern of land holding.

Lastly, large scale farms were tried most particularly in Bunyoro where capital intensive ranching was proposed on a 1600 sq. km. area. Bush and tse-tse fly eradication and improved pasture were major components. Al-

though the scheme was a failure, it did provide cleared areas which were occupied successfully by peasant farmers.

In summary the pattern of change in agriculture up to the 1960's weighed heavily in favor of Buganda and East Province though structural problems prevented dramatic change for most of the people in those areas. The other parts of the country lagged until the 1950's when the program outlined above increased the cropped areas in Bunyoro by 100 percent and greatly increased livestock production in some of the poorer areas. Those programs did not produce fundamental changes in the economic/cultural patterns.

By the 1960's, independence brought a new set of conditions as did the continued growth of local markets, the biggest of which was of course Kampala in the heart of Bugonda. Those issues will be dealt with in part 3 of this profile.

2.2 The Natural Resource Setting

In comparison with many African countries, Uganda is well endowed with natural resources. Two thirds of the country has over 30" of rain; because of the generally high altitude, temperatures are not extreme except in the northwest. The 17 percent of the national surface area covered with water has good fishing potential; the resource mix includes forestland and mineral wealth. Compared with other Eastern African countries, Uganda is indeed well endowed.

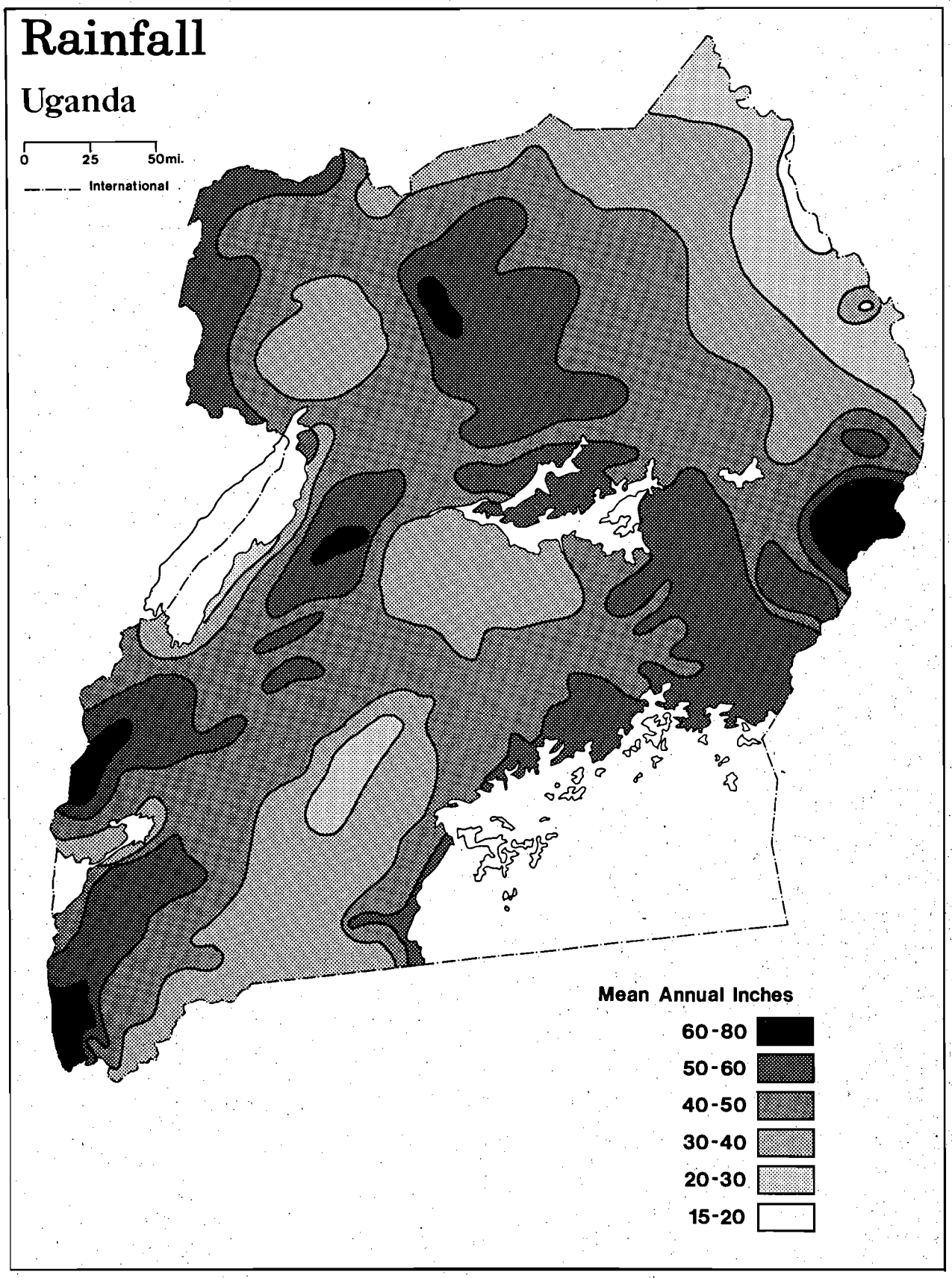
TABLE 2.3

Land Use 1975 (in thousands of hectares)

Arable	3,900
Permanent Crops	1,351
Grazing land	5,000
Forested	2,759
Other land	6,961
Total land area	19,971
Water Area	3,633
National Area	23,604

Uganda is predominately an agricultural country. In more normal times agriculture accounted for 54 percent of GDP, involved 85 percent of the economically active people, and accounted for 90 percent of exports. This is no accident. The south, central, and southwestern parts of the country, where most people live, is a plateau about 3,500-4,500 feet above sea level. It has been dissected into rolling hills and valleys (Figure III). Soils are quite fertile expecially on the lower slopes and in volcanic areas. But climate is a major factor in Uganda's agricultural

FIGURE II


Rainfall
Uganda
0
25
50mi.
International
Mean Annual Inches
60-80
50-60
40-50
30-40
20-30
15-20

potential. The equatorial location results in little seasonal variation in temperature and, except on the higher mountains, there is a year round growing season. For much of the country, the length of the rainy season is the most important factor. The center and west of the country have only one month with less than 50 mm (2") of rain and is ideal for the banana/coffee/tea crops of the area. In the south there is a three month dry spell (June-August); in the north a four month dry season is part of the northern hemisphere climate pattern (December - March) and in Karamoja, this dry period is over six months long.

Rainfall totals (see Figure II) include a significant area with over 80"; an extensive zone with over 50"; and only the districts of Karamoja and Ankole with less than 30" of annual precipitation.

The pattern of land use accurately reflects these different rainfall and topographic patterns Figures IV, V, VI, and XI provide helpful data on landuse and agricultural systems for the country. The drier areas of the northeast (Figures IV and VI) are occupied by pastoral peoples; most of the forested areas are on the uplands; to the west, the seasonally dry areas produce maize, cotton, and tobacco while banana, coffee, and tea grow in the wetter areas. A good regional fix on these areas can be gained by combining rainfall data in Figure II with the cropping patterns in Figure XI. As suggested

earlier, much of the economy of Uganda is based on the agricultural exploitation of the generally benign environment. Even so, much of the farming is on a small scale with crops for food farming a first priority. Ironically, it is the strong reliance on production of local food that has enabled Uganda to survive the trauma of the last ten years and emerge in the reasonably stable local food situation that prevails in the wetter regions in the central or southern portions of the country. This is not to suggest that urban Uganda or the drier areas have a stable food situation at the present time.

Forests occupy about 13 percent of the land area of Uganda and forestry has a sizeable though not fully utilized potential. The forested areas of Uganda include some of the most extensive in Eastern Africa. Much of the central and southern portions of the country, where rainfall and sunshine are reliable and plentiful, support heavy tree growth. Available statistics for the early 1970's suggest that most wood was cut for locally consumed fuel though about 80,000 cubic meters of sawn wood was produced annually, mostly for domestic furniture, housing, and other local uses.

Fisheries are another important resource in this landlocked but lake rich country. The Lake Victoria system, including the linking Nile River, is a rich resource though fish

FIGURE III

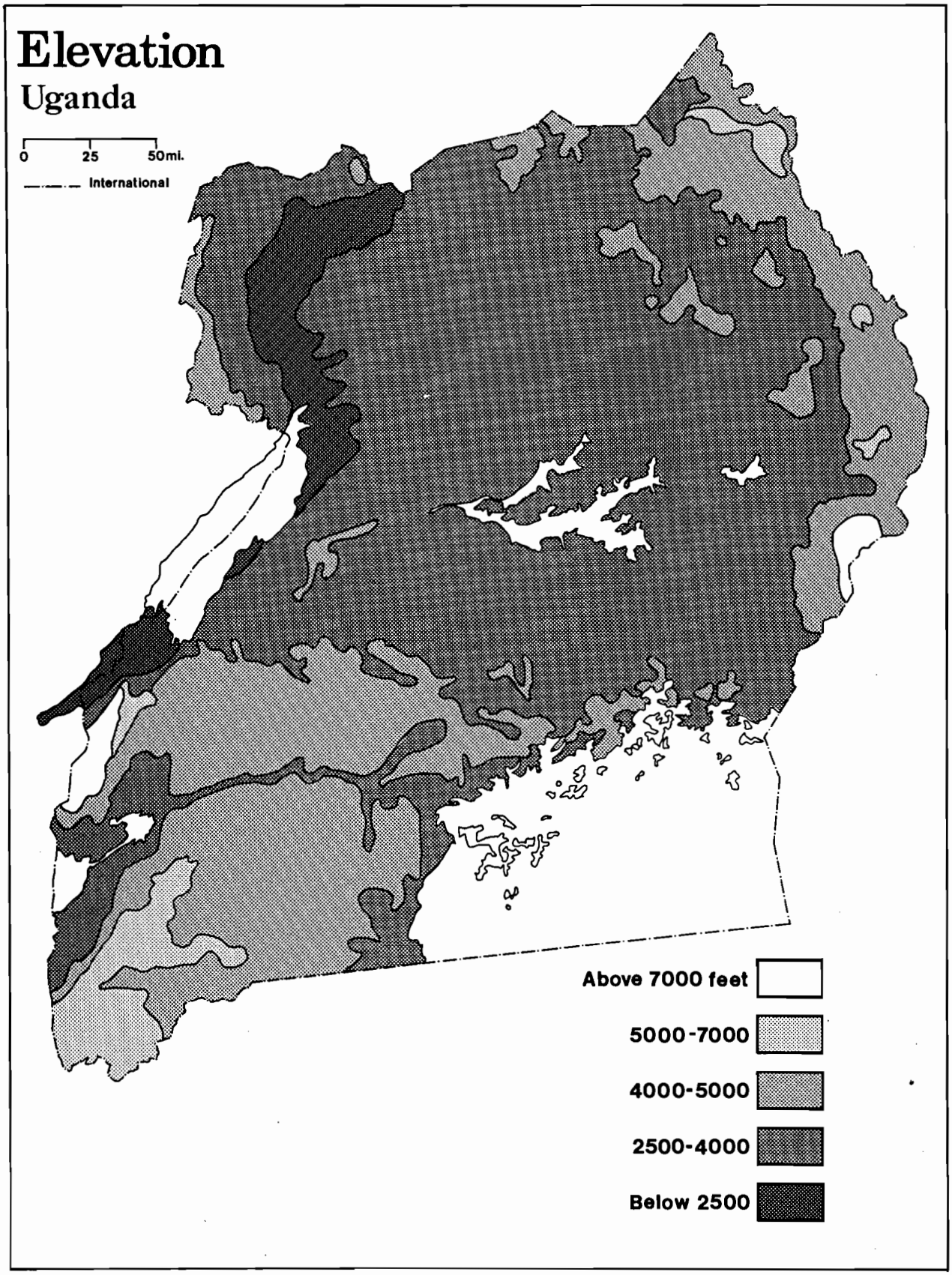

Elevation
Uganda
0
25
50mi.
International
Above 7000 feet
5000-7000
4000-5000
2500-4000
Below 2500

TABLE 2.4

Roundwood Production

'000 cubic meters

	1971	1972	1973
Sawlogs, veneer logs & logs for sleepers	196	168	170
Other industrial wood	884	913	905
Fuel Wood	13,200	13,600	13,600
	14,280	14,681	14,675

Source: FAO Yearbook of Forest Products.

catches appear to be, at best, stable in size in the last few years. Among the noteable fish are the Nile Perch, among the tastiest and biggest of fresh water edible fishes, and the smaller but no less popular tilapia. Although there is some danger of overfishing of these and other species, there also seem to be very good long term prospects of a better utilization of the fish resources of the country.

TABLE 2.5

Fish Catch

'000 metric tons live weight

	1972	1973	1974	1975	1976*
Tilapias	64.0	56.0	59.7	63.0	24.5
Nile Perch	60.0	64.5	64.5	65.4	12.6
Others	42.0	49.0	43.3	41.3	28.6
Total	166.0	169.5	167.5	169.7	64.7

* Provisional figures

Another important natural resource of Uganda is the scenery and land itself. This quite small country has a remarkable range of conditions including the fabled mountains of the Moon rising to over 16,000 feet, Mt. Elgon (shared with Kenya), the diverse lakes of Victoria, Albert, Edward, and Kyoga, and the near desert areas of Karamoja. In politically stable conditions, tourism to the varied Uganda game parks and to the mountains, is a major industry attracting nearly 100,000 visitors a year. While some of this wildlife heritage has been very seriously threatened, if not destroyed in the upheavals of the late 1970's, a large part remains to be established as an important Ugandan and world heritage.

Finally, Uganda, unlike most of the other East African countries, has a small but significant mineral production and further potential. Copper, tin, and tungsten are currently mined in the west and an area near Tororo produces raw material for a super-phosphate and limestone industry. Quantities of all except the latter are quite small and mining has served to provide a modest diversity in the resource base of the country, though there is some possibility of new finds and a renewed life to metallic mineral mining.

TABLE 2.6

Mining

Metric Tons

	1974	1975	1976
Copper ore	8,914	8,230	5,630
Tin concentrates	233	82	12
Tungsten concentrates	188	87	74
Apetite	13,501	4,892	2,116

Thus Uganda is a country with a well diversified resource base. In normal times agricultural production is enough to feed the population and provide a major part of the nation's exports. Livestock, industry and fishing diversify the production base and forestry, mining, and tourism provide valuable additional resources from the national setting.

3. Country Issues

3.1 Rehabilitation

Issue: The Uganda economy and infrastructure have been devastated by the events of the past three years. The process of rehabilitation will be complex and difficult but does provide some unique opportunities.

The Ugandan economy stagnated through the latter part of the seventies as industry languished and most of the cash crop production was diverted through unofficial marketing channels. In the agricultural sector there was a retreat into subsistence production. Tables 3.1 and 3.2 summarize the situation. Between the beginning and end of the Amin regime, agricultural production of all crops for sale dropped dramatically. The partial exception to this was coffee where there was a 28 percent drop from peak production levels. In comparison, tea production was halved, cotton production dropped to one-eighth of its peak levels, sugar production shrank almost as much, and tobacco output was 30 percent of 1972 levels.

Industry has never achieved as much importance as agriculture in the Ugandan economy but there was in 1970 a well balanced, though small, industrial sector. Table 3.2 shows a similar pattern to that in agriculture. Only cigarette production showed an increase; most other industries operated at a fraction of their former capacity, a few had virtually disappeared.

TABLE 3.1

CHANGE IN AGRICULTURAL PRODUCTION

Crop	Peak Year	Output 000's tonns	1978/79 output 000's tonnes	Value Shs. m
Coffee	1969	251	180	5100
Tea	1972	21	11	82.5
Cotton '000 bales	1970	467	60	128
Sugar	1970	144	20	39
Tobacco	1972	5	1.5	22.5

SOURCE: Adopted from Commonwealth Report, Vol.2

The general picture given by these two tables is of an economy in near complete disarray. Other information supports this conclusion. Basic infrastructure of all kinds is in poor shape: roads, railways, telephones and the framework of administrative government are all in need of rehabilitation. Underlying all this there is a continuing strength of local food production in most areas and of continuing reliance of most people.

There is not much that is positive to be gained from such a dismal picture of a country working at levels well below that of its modest prosperity of a decade ago. There is obviously a pressing need to get the economy back to work, to rebuild industry, and to reestablish the cash crops in agriculture. Along with these efforts is the need to rebuild the networks of communications and the inter-connections vital to national life.

If there is a development opportunity to be gained from this dismal situation it is to reexamine the previous economy and to build a better balanced pattern of economic activity into the new. Rehabilitation need not be limited to restoration of what was before but could also mean redefinition of priorities and redefinition of the economy in light of the different circumstance of the eighties. Not many countries have that chance.

TABLE 3.2

OUTPUT OF SELECTED MANUFACTURERS: 1970,1975,1977-78

	Unit	1970	1975	1977-* 1978	1977-78 as % of 1970
Cotton and other fabrics	M. linear metres	54.6	39.1	30.3	55
Blankets	000s	1164	322	165	14
Socks & Stockings	000 dozen	1246	261	290*	23
Soap	000 tonnes	12.9	3.6	1.2	9
Paper	000 tonnes	1603+	1805	1380	86
Cooking oil	000 tonnes	13.0	6.1	1.5	11
Paints	000 litres	1660	852	586*	35
Matches	000 cartons	49.3	31.4	8.1	16
Cement	000 tonnes	191	98	73	38
Superphosphates	000 tonnes	24.8	4.0	0	0
Corrugated iron sheets	000 tonnes	11.9	1.4	0.8	7
M.S. rounds squares etc.	000 tonnes	17.6	6.3	7.9*	45
Beer	m. litres	27.8	38.8	22.1*	79
Waragi	000 tonnes	563	859	420	75
Cigarettes	million	1536	1754	1867*	122

* Asterisked figures refer to 1977, all others are for 1978

\+ 1972

SOURCE: Commonwealth Report, Vol. 2, p. 28.

3.2 Magendo: The Black Market Economy

Issue: Magendo -- the black market, became in the years 1975-1980, a major part of the economy of Uganda. This breakdown in the regular economic fabric has had serious consequences not only for Uganda but also for neighboring countries.

The problem is best summarized in the following table:

TABLE 3.3

	1970/71	1975/76	1978
Cost of Living Index (Kampala low income 1970-100)	100	346	785
Minimum Wage Index (1970 = 100)	100	40	20

Source: Fleuret, Draft Background Papers, p. 7.

People living in urban areas in Uganda, government servants on fixed wages, and those in the formal wage economy had no means to survive in the economy, as illustrated in Table 3.3. Two strategies were possible. One was to pack up and go back to the family farm and grow one's own food or find work near the farm so that one could better combine subsistence and wage employment. The other, which perhaps the majority employed, was to create a new kind of income through Magendo. The magendo (or underground) economy relies on the trading of scarce commodities and/or services for other goods at greatly inflated prices. As the distortion and the inefficiencies of the Amin regime grew, magendo

took over more and more of the economy, sometimes operating on a semi-official basis in so far as many military personnel were deeply involved. Much of the nation's coffee marketing took place through smuggling and unofficial channels. Scarce imported goods were distributed through a similar network and agricultural inputs, medicine, and many unavailable necessities could only be found in the black market.

Services were also dispensed in this way. Teachers taught privately instead of in government schools, while retaining their regular jobs. Health services and much else fell into the magendo system.

Unfortunately, this situation has been slow to change, though at the end of 1980 there are some more hopeful signs. The great difficulty has been in restoring a more orderly marketing system and in holding down inflation in the face of a stagnant economy and the great shortage of imported goods of all kinds.

The prevalence of magendo has had widespread impacts in Uganda. First, there is the obvious impact on the working of the formal economy. It is hard to judge the state of the economy because so much of the activity has gone on outside formal structures. Second, the long run impact on the society is still unknown, both in terms of the economy as well as on the moral and social fabric.

Third, it has created obvious inequalities between those inside and those outside the magendo economy. Last, there are parallel distortions in the economy of nearby countries when smuggled goods are sold through their markets. Coffee sales figures for Ethiopia, Rwanda, and Kenya have in particular been affected by the Ugandan magendo system. The ripples have spread through much of East Africa.

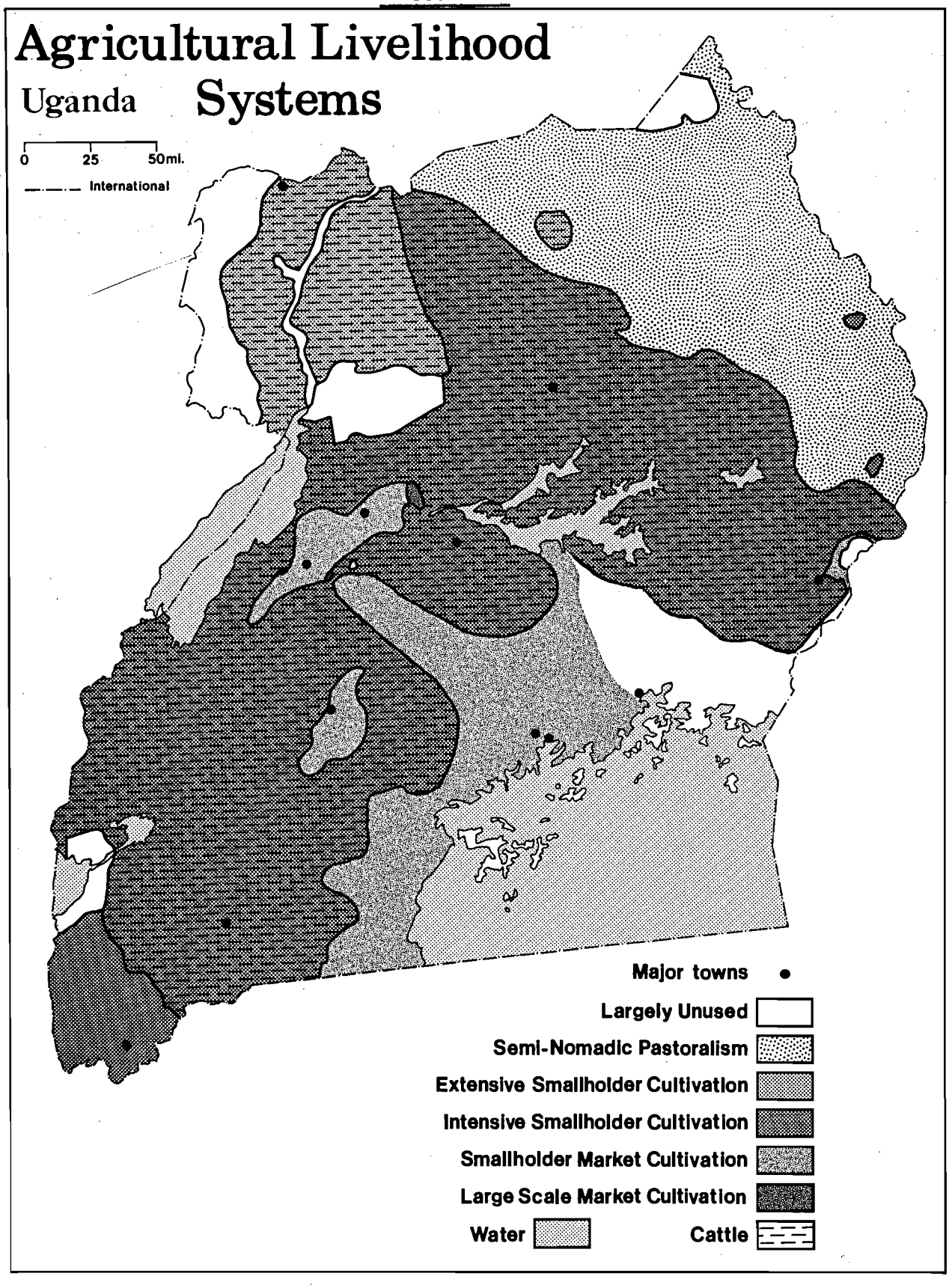
3.3. Agricultural Development

Issue: Agriculture is the backbone of the Ugandan economy but agricultural development has been uneven and future regrowth will need to encourage new patterns of production as well as some old.

Uganda's economy is essentially agrarian. Only about 7 percent of the population lives in towns of over 1,000 peoples. Virtually all its merchandise exports originate in the agricultural sector, as do substantial proportions of its inputs, food, and tax revenues upon which the towns, industries and service sectors depend. Overall economic performance is therefore dependent on agricultural performance. Import substitution industrialization has primarily altered the composition of the import bill, leaving the economy still dependent on imports for fuel, many industrial and agricultural imports, and most of its machinery and equipment. These must still be paid for by agricultural exports.

Data relating to Ugandan agricultural developments were inadequate even before the last decade of military rule. Information relating to the actual production of food crops, the status of women who grew most of those crops, and stratification in the cash crop areas remained available only in the form of case studies, mainly conducted by the university. In recent years, as a result of the deterioration of both the university and the government's statistical services, agricultural information is largely based on "questimates." Macro data is derived from estimates

FIGURE IV

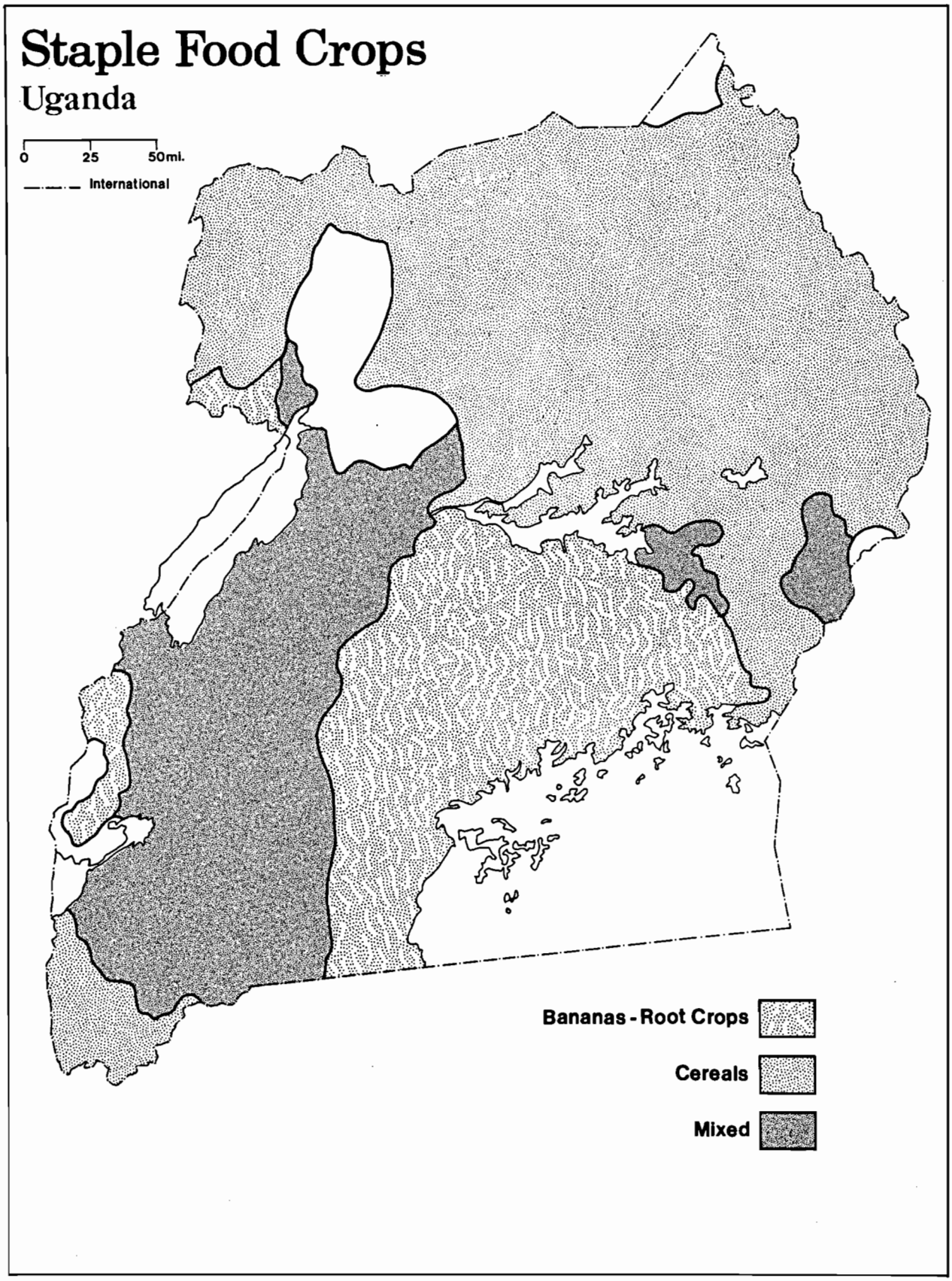

Agricultural Livelihood Systems
Uganda
0
25
50mi.
International
Major towns
Largely Unused
Semi-Nomadic Pastoralism
Extensive Smallholder Cultivation
Intensive Smallholder Cultivation
Smallholder Market Cultivation
Large Scale Market Cultivation
Water
Cattle

and projections by recently installed ministries and foreign experts who have surveyed the situation. This survey of agricultural issues will, therefore, focus primarily on the main trends and apparent tendencies, suggesting particular areas that need further research.

Agricultural development in Uganda is uneven, reflecting climatic differences between regions and the way the country became integrated into the world economy during the colonial era. Uganda's agricultural potential has always been great, especially in the south and west. Prior to colonialism, Ugandan farmers produced a sufficient surplus to support a powerful Bugandan Kingdom, based in the prosperous southern region, north of Lake Victoria.

Colonialism introduced a monocrop economy, rendering Ugandan economic well-being dependent primarily on the sale of coffee and cotton on uncertain world markets. Since Ugandan peasants intercropped export crops with foodstuffs, they required relatively low cash prices which initially made Ugandan exports highly competitive on the world market, ensuring rapid expansion of output and sales. At the same time, the expansion of coffee and cotton in the southern and western regions tended to aggravate the uneven pattern of agricultural development. Less fortunate peasants, in order to pay cash taxes imposed under colonialism, migrated from the north and eastern regions to work as

FIGURE V


Staple Food Crops
Uganda
0
25
50mi.
International
Bananas - Root Crops
Cereals
Mixed

sharecroppers or hired labor in the more prosperous cash crop areas, starting a pattern of migrant labor that persisted and grew in the independence era. Food production, on the other hand, tended to be relatively neglected, along with the women who, for the most part, grew food crops. Research and improved farm inputs were devoted almost entirely to the export crops, and colonial officials explicitly discouraged women from producing those. In the pre-colonial era, women had grown cotton, but colonial extension agents discouraged them from producing it for sale.

The colonial administration also encouraged Asians to become traders throughout rural as well as urban areas. Some of these, taking advantage of their near monopoly position in the trade networks spreading throughout the economy, accumulated capital which they reinvested in estate agriculture, especially in sugar and some tea, creating large, increasingly mechanized estates and associated processing facilities.

In the post-colonial era, the independent government made some efforts to spread development more widely, introducing planning in an effort to stimulate some industrial growth and increase African participation in economic as well as political life. In particular, it sought to expand agricultural processing, especially of coffee and cotton, and produce some farm inputs. But, for the most part, the new industries remained import substitution industries.

More basic industries, like fertilizers, based on available phosphates, remained truncated because of the failure of the East African Common Market to ensure region-wide sales.

The decade of military rule aggravated all the problems of Ugandan agricultural development. On the one hand, the Amin regime ousted the Asians, attempting to allocate their trading and estate activities to favored Africans without regard to the need to ensure efficient distribution and productivity. On the other hand, it sought to milk the export sector by holding down prices to the producers and skimming off the surpluses to finance the military and its corrupt administrative structures. The result of these policies was (1) the near collapse of estate agriculture, a collapse hastened by the lack of foreign exchange to buy spare parts and machinery for their modern mechanized operations; (2) wages for migratory labor remained low as inflation boosted living costs and many engaged in theft and begging while a few returned home to subsistence farming in overcrowded or marginal land areas (those from neighboring countries like Rwanda leaving permanently); (3) abandonment of tea production by 80 percent of the small farmers, a sharp decline in cotton production, and a fall in legally sold coffee; (4) a rapid growth of smuggling of coffee across the borders to Kenya and Tanzania where prices were significantly higher -- as much as 20-25 percent of the crop was sold this way, per-

haps three-fourths of it shipped by military convoys to line the pockets of those who organized them; (5) corruption spread throughout the system, adding to the difficulties confronting the cooperative unions which handled export crops; reports indicated those with influence who worked for the unions milked them for their own benefit, and even participated in the smuggling activities; and (6) a widespread return by smaller farmers to food production to meet basic family needs and sell the surpluses to neighboring areas within the confines of the disrupted trading and distribution networks.

The war that culminated in the ousting of the military regime added the crowning blow: the factories built to process cotton, coffee and other crops, many of them already affected by lack of spares, were in many cases looted and destroyed. The roads, already in a state of disrepair due to years of neglect, deteriorated under the impact of military traffic. The planting and harvesting cycle, especially for cash crops, was further disrupted, leaving little hope that the country could sell enough cash crops to pay for its basic minimum import requirements. It was estimated that, at best in 1979/80, exports would cover less than a third of essential imports: fuel, machinery and equipment, and food.

Immediate measures were needed to overcome the disruption and destruction of the agricultural sector due to the decade of military rule and the war. In the longer run,

development of agriculture needs to be planned in conjunction with efforts to create a more balanced, integrated, and self-reliant economy. This requires attention to collection of information and measures to overcome the difficulties in respect to several important aspects:

1. Restore the necessary institutional framework and incentives to ensure expansion and diversification of export crops to earn necessary foreign exchange to finance machinery and equipment, oil, and other inputs required to stimulate productivity throughout the economy. This involves rebuilding the cooperative unions and marketing boards to end corruption, ensure that they represent their members, and provide adequate producer prices. It necessitates rehabilitating the processing industries to augment the value of exports and focusing attention on their role in the the spread of industry in rural areas. Careful analysis of the effects of stratification and patterns of labor employment should contribute to strategies to raise the productivity and incomes of the poorest segments of cash crop producers. Attention needs to be directed, too, to the rehabilitation and future role of the mechanized estate sector, to ensure that it contributes to the spread of productivity and employment.

2. Improve productivity and the distribution networks for food production to end the import of foodstuffs and ensure that all areas of the country, regardless of climatic and geographical differences, have sufficient quantity and quality of food. Research and education to introduce appropriate varieties and technologies should involve the women who produce a major share of food output. Transportation and shortage facilities must receive immediate attention, and, over the longer term, food processing industries should be built to ensure preservation and distribution of increasing amounts of fruits and vegetables, dairy produce, etc. At present, the state dairy board is reconstituting dried milk,

presumably imported; in the longer run Uganda's own dairy potential seems high and research should focus on appropriate technologies and institutions to direct it to the needs of the population.

3. Agricultural development must be linked to and stimulate, as well as be advanced by an appropriate industrial strategy. The agricultural sector could produce the necessary inputs for a range of industries for domestic and export consumption: coffee, tea, sugar, cotton textiles, tobacco, fruits and vegetables, dairy produce, soap and vegetable oils could all be processed to augment their value and increase their contribution to the popualtion's basic needs. Industries should be developed to provide essential agricultural inputs: tools and equipment at appropriate levels of technology to increase productivity; fertilizers, etc. Uganda has phosphate deposits which could be processed in a fertilizer industry, but it would require a larger market than that of Uganda alone. Over time, attention will need to be focused on the possibilities of regional cooperation to facilitate this kind of larger scale industrial development to augment agricultural productivity.

3.4 Semi-arid Lands: Drought and Famine

Issue: The semi-arid areas of Uganda, located in the north and east, have been hit by drought and famine in 1979-80 with many deaths. What is the future for this area?

Two contrasting images of Uganda face us. The first is of a fertile country well able to feed itself, even under the disruptions of the last decade. The second is of malnutrition and death by starvation. Photographs of the Karamoja provide graphic evidence of the disaster which has hit that area.

Tragically both images reflect the truth. Uganda is well able to feed itself and will continue to do so. But the problems of the arid and semi-arid areas are those almost of another world. It is another world because of its different climate and livelihood system. It is also another world these days because of the breakdown in the internal communication system within Uganda.

The drier areas of Uganda lie mostly in the north and east (Figure II). Here there is a long dry season and in the driest area, Karamoja, drought hits the area three years out of five. Because of the unreliability of the rainfall, the Karamoja in particular have been livestock herders. They grow grain in favored locations and get good yields in the wetter years. But cattle provide the basic insurance and help them to tide over from poor rainfall years to the good.

Other cattle owning groups across the border, the Turkana for example, have similar economies and there has long been rivalry and cattle raiding between them. However, in the Ugandan context there has been a strong push to fit the Karamoja more in the national framework, to encourage them to grow more grain and move around less in search of grazing.

All these pressures have created new problems for the Karamoja, but the culmination for them seemed to come with the war of liberation. In the prevailing state of disorder many of their cattle were stolen by the armies and by raiders from outside Uganda. The cattle were depleted, the rains were poor, and the continuing unrest made relief difficult.

This in a simplified form was the problem of the Karamoja in 1980. Many died.

The future of Karamoja and the drier parts of Acholi needs to be based on an understanding of the resource potential of the area. It is not as other parts of Uganda and without dramatic and unlikely development ventures arable agriculture will at best provide a supplement to the main economy of the area, livestock.

It's unclear at the moment what the true extent of the losses of animals and people are. It's also unclear how enough security can be provided to allow a rebuilding of the herds. It's unclear what the future is.

What is clear is that the present famine and starvation is a result of a number of trends coalescing: the greater reliance on cultivation, the destruction of the cattle, the failure of the rains, and the inadequacy of support networks. The process of rehabilitation of the area will need to deal in some measure with each of these realities.

3.5 Disparities in Economic Development

Issue: Over the past eighty years of colonial and independent rule, economic disparities between different parts of Uganda have increased, though the past decade has seen some levelling down. Future development policies could reverse these trends.

Table 2.2, taken from section 2 showed that Buganda had almost three times the per capita income of the next regions (Lango and Teso). Table 3.4 refines that general picture with estimates of per capita income from cash crop agriculture, cattle sales, and industry. These show a remarkable range in "external" economic activity among the districts of Uganda from 2900/- in Kampala to 8 shillings in Kigezi. The large numbers are skewed by the higher incomes gained from industrial enterprises. These are concentrated in a few districts, and the highest five districts all have a major industrial component.

However, even within agriculture there is a wide range, from 250 shs. per capita in Buganda to two shillings in Karamoja. Although the figures may be dated and the exact statistical basis not good, it is clear that there is a wide disparity between areas.

A closer examination of the main focus of economic well-being shows that there is a clear concentration in a narrow zone within 15 miles of Lake Victoria and in a wide arc from Masaka towards the Kenyan frontier. Generally, economic activity drops along radii leading out from this arc towards the west, the north and the northeast.

TABLE 3.4

INCOME PER CAPITA 1960's (shs.)

	(a)	(b)	(c)	(d)
Mbale	-	-	2900	2900
Busoga	150		652	802
Mengo)			320)	
Mosaka)	256		15)	606
Mubende)			15)	
Bukedi	74	1	155	230
Bunyoro	94		70	164
Teso	80	20	23	123
Longo	100	10	1	111
Toro	80		23	103
Bugisa/Sebii	86		8	94
Acholi	80		3	83
West Nile/Mali	50		2	52
Ankole	18	2	9	29
Karamoja	2	20	-	22
Kigezi	6	-	2	8

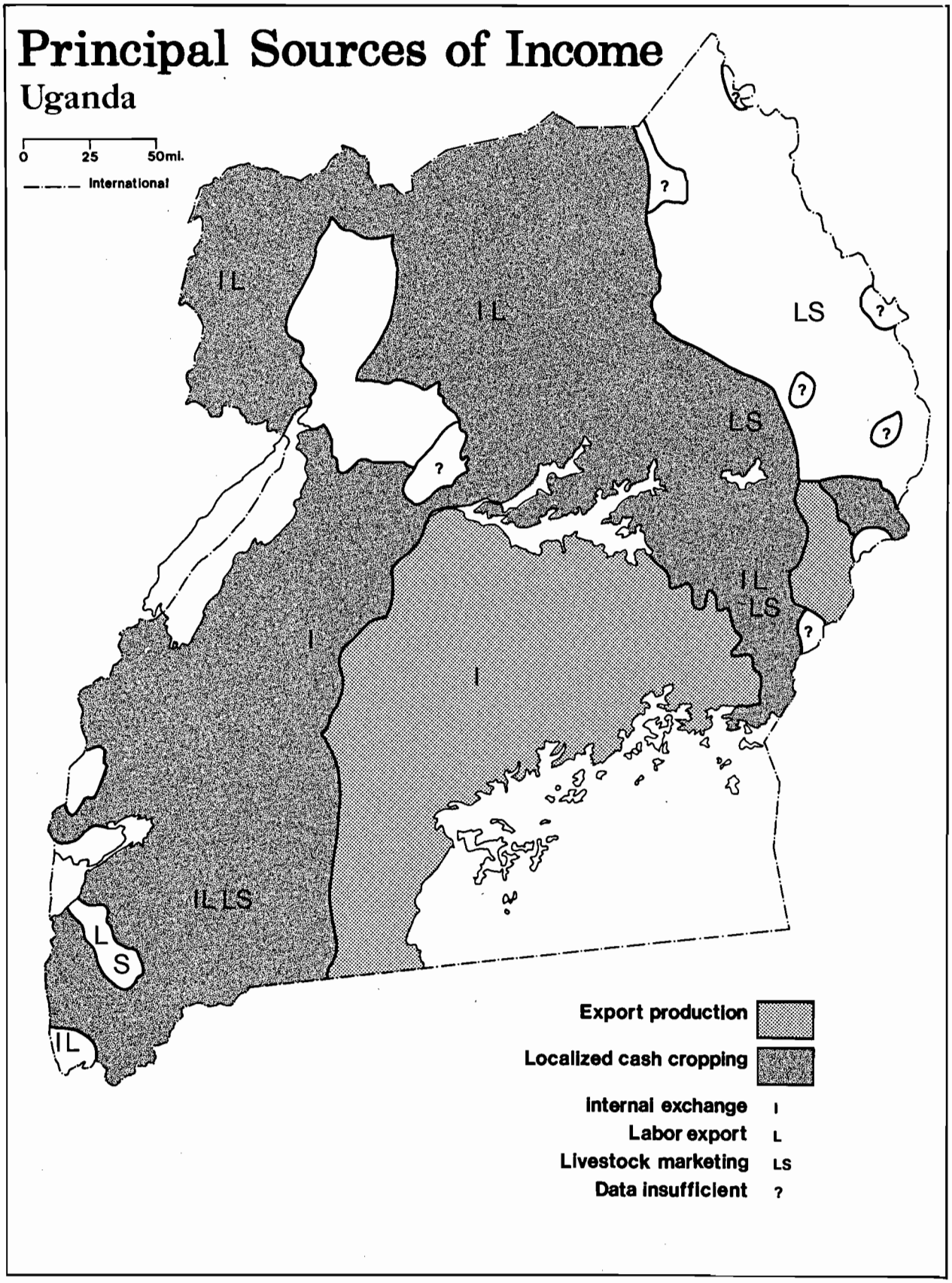
(a) Av. per capita income cash crop agriculture 1964

(b) Av. per capita income cattle sales 1963

(c) Av. per capita income industrial production 1966

SOURCE: Langlands, B.W., 1969. On the disparity in the distribution of Economic Activity in Uganda. Paper for Univer. of East Africa Social Science Conference 1969.

FIGURE VI


Principal Sources of Income
Uganda
0
25
50mi.
International
IL
IL
LS
LS
?
?
?
?
?
IL
LS
?
I
I
IL LS
L
S
IL
Export production
Localized cash cropping
Internal exchange I
Labor export L
Livestock marketing LS
Data insufficient ?

The reasons for this disparity are complex. They include a combination of more favorable climate, soils, and accessibility in the Lake Victoria arc. But they also include political advantages which the Bugunda in particular were able to obtain early in the colonial period. Colonial policies clearly worked towards a reinforcement of the strength of the area around the lake and mitigated against the more peripheral areas which were regarded as a labor reserve.

Post-independent policies in agricultural pricing, infrastructure development, and in industrial location did not significantly alter the pattern. The main influence in the sixties was a growth in cotton and tobacco production in some of the poorer districts and a change to arabica coffee. In the last decade the decline in industrial activity and the reduction in cash cropping has had a differential impact in the country. It is not at all clear what the detailed impact has been though obviously cotton and tobacco growing has suffered more than coffee production. Some poor areas like Karamoja have suffered severely.

The basic pattern of inequality of economic distribution probably remains and will certainly be reestablished if the economy just reverts to its previous pattern. There is not much doubt that this will happen. It is also possible that some helpful measures to reduce the disparity could be a feature of growth over the next few years.

Location of industry, price incentives for cash crops, marketing opportunities, and location of government enterprises could all play a part in lowering these very major differences between one part of the country and another.

3.6 Energy

Issue: Uganda is unusual among African countries in that there are good resources of hydro-power as well as well dispersed rural fuel resources. The most important issues are the phasing of new hydro development in line with the recovery of demand and the maintenance of rural energy supply in a resurgent economy.

The major developed power source in Uganda is Owen Falls hydro-power which utilizes power generated at the exit flow from Lake Victoria. Owen Falls has a generation capacity of 150 MW (out of a national installed capacity of 154 MW).

Reasonable estimates suggest that there is an additional capacity of about 1,755 MW which could be tapped at six sites all along the Nile.

Consumption of power through this modern sector network is however limited. When the Owen Falls station was finished in 1958 demand was around 10 MW and an agreement was signed to provide 30 MW per annum to Kenya (the agreement valid until 2008 was in very favorable times to Kenya). Within Uganda, there is now a power grid covering about 100,000 households and a supply to the major industries. There was steady growth in demand until the early 70's and since then a steady fall mainly due to a large drop in use by industry since then. Industrial use of hydro-electricity peaked at 323 mkwh in 1969 and was only 161 mkwh in 1978. Domestic consumption continued to decrease during the 1970's to 98mkwh in 1978, though even then the per capita consumption of

power in Uganda was one of the lowest in the world (45 kwh). A feature of modern sector power in Uganda is that most of its use is restricted to the arc of denser population around Lake Victoria.

Even a cursory review of the situation as outlined above suggests that there is potential for a rapid increase in demand if the economy begins to regain some of its former industrial strength. The Commonwealth team estimated that demand in 1983 could be equivalent to 161 MW with steady increases projected thereafter. The agreement with Kenya would then be a force competitive with internal Ugandan consumption.

The irony of the situation is that an energy rich country with current low demand could soon have serious supply problems unless decisions are made soon and work begins on the development of new capacity. The problems of hydro power development that Kenya is now experiencing may mean that longer run international sales may be feasible though terms will need to be better than those currently in use. An important issue in the future will be to develop power sites outside the Lake Victoria arc to serve as a force for dispersal of economic power away from that area.

The rest of Uganda is of course using energy now but most of that energy comes from wood and charcoal of local manufacture. Uganda is, for the most part, fortunate in her wood resources and in having an environment characterized by good replacement rates. However, in some parts

of the country the wood/charcoal situation is less favorable, particularly in Karamoja and Acholi. In these drier areas local fuel is already in short supply and consideration needs to be given to wood fuel plantations on a local basis.

It is almost axiomatic that Uganda's problem with petroleum supply is acute. All imported fuel supplies have to come through Kenya, costs are high, and foreign exchange for such imports is short. It will be very important that Uganda use domestic energy resources to the highest degree possible and plan carefully for their use in the future.

3.7 Transportation

Issue: Road and rail provide the major means of internal transport in Uganda. Although before 1970 there was an adequate road network in Uganda, its now in disrepair and there are relatively few operating vehicles. The railway has similar problems of rolling stock and track maintenance.

In 1970, Uganda had a trunk road network which served most parts of the country (Figure I). The extreme north and east and the far west were not part of the network; most of the rest of the country was. Of the 7,000 kms of main road, only 2,000 km was surfaced though the remainder was drained and graded. In Uganda's generally moist climate with heavy rainstorms, road sealing, grading, and draining is vital.

Feeding into the main road network is a subsidiary set of secondary roads, almost all unsealed and about half ungraded. These total around 20,000 kms.

The rail routes in Uganda serve mainly the arc of higher economic activity around Lake Victoria and links Uganda to the sea at Mombasa through Tororo and Kenya and also provides a link westwards to Rwanda and Zaire. Supplementing road and rail are ferry services across Lake Victoria, the most important link being between Entebbe and Mwanza in Tanzania where there is another rail link to the coast at Dar es Salaam.

The transportation net obviously serves many different functions but in Uganda the most important are:

... providing links to the coast for imports and exports;

... internal marketing of crops and minerals;

... internal distribution of goods and services.

The railroad has traditionally been used for three main export commodities; cotton and cotton products, coffee, and copper. Smaller quantities of tea were also carried by rail (Table 3.5).

TABLE 3.5

TONNAGE OF MAIN COMMODITIES LOADED, 1973/78
(000's of tonnes)

Commodity	1973	1974	1975	1976	1977	1978
Cotton lint	71	38	26	14	8	10
Cotton seed and cake	70	48	37	11	5	3
Coffee (CMB)	218	194	155	131	82	52
Coffee (other)	32	23	19	19	1	1
Copper concentrate	47	33	26	16	13	5
Blister copper	10	8	7	7	2	2
Tea	16	15	9	8	2	-

SOURCE: Uganda Railways Corporation, Rehabilitation Improvement and Development 1979/81.

The roads were used to bring all of these products (except copper) to the rail head and to import and export significant quantities of tea, coffee, and other agricultural products.

In the last decade, this somewhat orderly process has been greatly disrupted. All parts of the communication system have fallen into disrepair and additionally the railways have been disrupted by the break up of the East African common services agreements. The total import is suggested in Table 3.5. The transportation of cotton by rail has dropped off dramatically, even more than the drop in production. Coffee marketing board coffee has dropped to 25 percent of its previous level and almost no other coffee is moved by rail. It appears that as rail transport has been disrupted and as magendo has been a major feature of marketing, and even air transport has replaced rail, at least temporarily.

Unfortunately the road transport system is physically in very poor condition. Road maintenance has collapsed and so have the roads. The lack of maintenance was compounded by the wear and tear of military traffic during the war and the loss of machinery at the same time.

As well as a program of rail rehabilitation and maintenance, the vehicular fleet will need to be re-established and the pattern of marketing once more set in motion.

Two things are clear, the first is that a major effort is needed to begin, only begin, to restore the physical communication net. The second is that an additional effort is needed to develop a new set of relationships between the various communication modes. Can the efficiency of the railroad be restored and improved? How can energy costs be reduced in this or other ways? There is a new situation with regard to energy costs which should encourage something other than the simple restoration of the physical network.

3.8 Industry and Mining

Issue: In the late 1960's, manufacturing, industry, and mining made up a substantial part of the economy and provided many jobs. Exports of both were a significant part of the trade. Mining and industry are particularly hard hit by the events of the 70's and a substantial rehabilitation effort is needed.

TABLE 3.6

PRODUCTION OF BLISTER COPPER

70/71	75/76	78/79
17,000 tons	8,200 tons	2,300 tons

Export shs. millions	1974	1975	1976
	121	70	59

The above Table and Table 3.2 (in Section on Rehabilitation) tell a good deal of Uganda's story. In 1970, the manufacturing sector had grown to meet most of Uganda's internal needs and there was a substantial level of exports within East Africa. The most rapid part of the expansion came in the late sixties when there was a 25-40 percent growth in many industries. The mining industry, especially copper from Kitembe and limestone from Tororo, had shown a steady increase in output and a larger contribution to the economy than in other East African countries.

Several factors affected industry in the 70's including change of ownership (private-public), change in management and technical personnel (loss of Asians and other skilled Ugandans), and recent lack of foreign exchange for replacement of machinery and equipment. In some industries

there have also been problems with raw materials and other inputs.

Table 3.2 shows that while the decline in industry has been general, some units have been more adversely affected than others. Cotton fabrics have suffered from supply problem, reducing production by almost 50 percent. Soaps, blankets, cooking oil, matches, and superphosphate output has dropped to a small fraction of earlier values. Cigarettes, paper, and beer have held up reasonably well. Superphosphate and cement production may be restored fairly quickly as the demand recovers but some other products may need a period of more substantial reinvestment in equipment and managerial personnel.

The major export mineral is copper and production has dropped sharply because of non-maintenance of equipment and the fall in world prices. It will require a major effort to restore former levels unless world prices rise quickly. However, production will likely rise after some reinvestment in equipment. Phosphate production and a number of metallic minerals are also mined in Uganda on a small scale. Production of these could probably be restored rather easily as major equipment is not needed.

The manufacturing and mining sector in Uganda has a strong supporting role to play in the national economy. However, in the intervening period of the 70's there have been substantial changes in the world and regional economy.

Oil prices have increased, copper prices have dropped, new industries have grown in Kenya and new patterns in inter East African trade have grown up. The new patterns of industry in Uganda will grow mostly from the old as much of the old plant is still in place. Yet some considerable adaptations to new circumstances will be necessary if Uganda is to compete in the region's trade in the 1980's.

3.9 Management and Skilled Manpower

Issue: As a result of the period of Amin's rule, many well trained Ugandans left the country or were killed. Many of the farmers have not yet returned. The availability of skilled manpower and management capacity will be important factors in the next few years.

Uganda was fortunate to have one of the first universities in colonial Africa, Makerere. This institution was extremely influential in establishing a professional cadre in Uganda as well as in the rest of East Africa. Even so, in the more technical areas, Uganda before Amin, like other East African countries, had problems. There was a shortage of most categories of trained personnel, even though institutions available for technical training included: Institute of Public Administration, Management Training Center, National Teachers College, Uganda Technical College, Uganda College of Commerce, and various training institutions in agriculture, veterinary medicine, nursing, etc. It was also clear during the pre-Amin days that the Asian community provided a significant proportion of the technical and middle level management skills in both private and parastatal sectors. During the Amin period and in the war of liberation, nearly all of the Asians were expelled, many other Ugandans left the country or were killed, and the training institutions operated at much lower levels than previously.

The result is a situation where skilled manpower is urgently needed at all levels of society and is in very short supply. The Commonwealth mission in mid-1979 found the following situation in key ministries.

TABLE 3.7

PERCENTAGE OF POSITIONS VACANT

	Establishment	Vacancies	% Vacant
President's Office	74	48	69
Ministry of Reconstruction and Rehabilitation	186	151	81
Ministry of Education	295	118	40
Ministry of Agriculture	215	95	44
Ministry of Finance, Planning and Development	40	27	67
Ministry of Regional Admin. and Local Government	61	51	84

SOURCE: Commonwealth Report.

The situation has improved somewhat in recent months, though against that trend is the awareness that efficiency in some cases is even less than suggested by Table 3.7 because some people fill two jobs. The capacity of the country to restore former levels of economic activity will in part depend on the restoration of the normal functions of government. It will also rely on the ability of government to fill posts in a wide range of ministries and parastatals

and also on the capacity of the private sector to provide skilled personnel to restore industrial and commercial life. A recent US-AID report (1980) suggests that it is still difficult to identify priorities for professional and technical manpower training but that the need continues to be at least as pressing as set out in the earlier commonwealth Report.

The next few years will be difficult as manpower needs will depend so much on the rate of recovery of the economy and the detailed patterns of that recovery. There may well be sectors of surplus as well as shortages of manpower in certain categories because of these uncertainties. In the longer run, it is likely that the Ugandan economy will require a substantial new influx of skilled manpower to meet a sustained period of growth and development.

3.10 Marketing

Issue: Marketing of most agricultural produce is officially carried out through a series of boards or other parastatal bodies. This system was not functioning effectively in the late 70's and the whole set of arrangements needs review.

Table 3.8 sets out the main Ugandan marketing structures for agricultural produce. The marketing boards have statutory rights over the sale of their particular crops. Sales outside this structure, though considerable, are illegal. The cooperative movement and the marketing boards together play a critical role in agricultural production. If the boards are effeciently run and provide suitable price incentives, Ugandan farmers show quick responses. If the boards are corrupt or inefficient, either magendo takes over or the producer opts for other crops and/or livelihoods.

The cooperative movement showed a steady growth through the 1970's and its capacity included ginning and coffee processing. But the handling of some crops, especially cotton, became more and more difficult, partly because of the unrealistic pricing structure and partly because of inefficiency and poor management. A review carried out by the Commonwealth team and subsequent analysts strongly suggests that major reforms occur in many of the boards and that the number of parastatals be reduced.

The specialized boards for Uganda's most important crops need to be retained but almost all warrant a thorough review of operating structures, particularly pricing and payment policies. Coffee and cotton are both key products

and priority areas for market evaluation. The Produce Marketing Board which is meant to control a wide range of "other" agricultural produce is a prime candidate for elimination.

Whatever the detailed decision, it is very important that marketing of key crops be efficiently handled through regular channels. Less critical crops can well be left to the more general play of market forces.

TABLE 3.8

MARKETING STRUCTURES FOR THE MAJOR AGRICULTURAL SECTOR PRODUCTS: UGANDA 1979

Product (1)	Sub-sector (2)	Market Structure (3)	Production/ Marketing Chain (4)	Marketing Parastatal or Board (5)	Responsible Ministry (6)
1. Coffee	Private Sector	Free market under CMB buying price	Estate factories Estate pulperies	CMB	MCM
	Cooperative sector	Administered processing formula and min. producer price	Societies-Union factories	CMB	MCM
2. Cotton	Cooperative monopoly	Administered processing formula and fixed producer price	Societies-union ginneries	LMB	MCM
3. Tea	Small scale	State administered green leaf price	(Cooperatives) UTGC	UTA/BUL	MA
	Large scale	Free market	AEL UTGC UTA Private firms	UTA/BUL	MA
4. Sugar	Small scale	(Cane prices negotiated with factories)			MCI
	Large scale	(Statutory retail prices)	NSW KSW USF (SBE)	-	MCI
5. Jaggery	Licensed producers	Free Market	Producers-traders/spirit processors	-	MCI
6. Tabacco	Cooperative monopolies	(Statutory retail prices) producer price formula & quotas	Barns- Societies Unions	- NTC	MCI

TABLE 3.8 (Cont'd)

Product (1)	Sub-sector (2)	Market Structure (3)	Production/ Marketing Chain (4)	Marketing Parastatal or Board (5)	Responsible Ministry (6)
7. Other crops	All producers	Free Market (with statutory minimum producer prices)	Producers-traders-retail	(PMB)	MCM
8. Beef	All producers	Free market (with statutory maximum retail prices)	Private, co-operatives, state, parastatal herds	-	MAR
9. Milk	Rural supplies	Free market (with statutory maximum retail prices)	Producer/ retailers or traders	-	MAR
	Urban supplies	(Statutory monopoly)	Producers-	(DC)	MAR

Abbreviations:

Column 4: UTGC - Uganda Tea Growers Corporation
AEL - Agricultural Enterprises Limited
UTA - Uganda Tea Authority
NSW - National Sugar Works (Kinyala)
USF - Uganda Sugar Factory (Lugazi)
KSW - Kakira Sugar Works
SBE - Sango Bay Estates

Column 5: CMB - Coffee Marketing Board
LMB - Lint Marketing Board
UTA - Uganda Tea Authority
BUL - Blenders Uganda Limited
NTC - National Tobacco Corporation
PMB - Produce Marketing Board
DC - Diary Corporation

Column 6: MA - Ministry of Agriculture
MCI - Ministry of Commerce and Industry
MCM - Ministry of Cooperatives and Marketing
MAR - Ministry of Animal Resources

Note: Brackets indicate that the organisation or structural component was not operationally effective as at June 1979.

SOURCE: Commomwealth Team.

3.11 Environmental Issues

Issue: Although most matters of the environment must necessarily take second place to the task of economic and political rehabilitation, some issues need to be addressed so that they can be incorporated into the planning framework and/or because they are important to economic recovery.

The Ugandan environment is more benign than many in Africa and man/land pressures have been less than in other countries including, for example, Kenya. However the steady growth of numbers of people over the last decade, the breakdown in the normal patterns of law and order, and some continuing underlying problems all contribute to the set of important issues for Uganda at this time.

There are problems of recent data availability for each of the major problem areas. But the larger need over the next few years is to better define approaches to the major environmental problems. The issues considered here are: Soil erosion and sedimentation; problems of wood cutting and vegetation depletion; depletion of national parks; problems of environmental health and disease.

Soil Erosion and Sedimentation

There is little up to date information on this topic from Uganda. The problem has generally not been considered to be overwhelming up to the present. However there are clear indications that in several areas there are growing problems. Three most affected areas include:

... the arid areas of Karamoja and the northeast;

... the semi-arid areas of Ankole and the north;

... parts of the more humid region around Lake Victoria where the footslopes are dissected by gullies and affected by sheet wash.

In each of these areas, soil losses impact the local economy in different ways. In Karamoja, soils of inherently low productivity have lost much of their humus content and vegetation cover has been depleted; small dams and reservoirs are liable to rapid siltation. In the semi-arid areas, soil productivity trends are not clear though some areas have problems of reservoir sedimentation at high rates -- an indication that soil is being rapidly removed from the area. An important part of the pressure for increased cash crop production from these areas will be to maintain and improve soil conditions under wider cash cropping. In the Buganda area, problems are localized but rapidly become more important as population growth continues. As this is the most productive area of Uganda, supporting a large part of the population, the maintenance of productivity is vital to this predominantly agricultural country.

The National Parks and Restoration of the Tourist Industry

One of the many casualities of the Amin regime and the war appear to have been the wildlife population of the

game parks. First poaching took a toll of the larger game. Then soldiers on both sides extended the devastation. Reports vary on the extent of the problem but the large mammals such as elephant, hippo, rhino, and buffalo appear to have been seriously depleted and there may be a considerable period of herd rebuilding needed. Uganda includes some of the most ideal habitats for game animals and contains unique game parks which have helped attract 180,000 tourists a year. In due course this tourist industry will begin to reestablish itself and the economic as well as the conservation aspect of the parks will be reestablished.

Wood Cutting and Vegetation Depletion

Uganda is fortunate on two counts, there is potentially a good supply of hydro power for most parts of the country, and a large part of the country has good wood resources. However the energy problems of many other African countries also impact Uganda. The plateau climate is characterized by cool nights and woodfuel and charcoal are important fuel resources for most of the people. At present the national electrical grid serves only a small part of the country.

Depletion of vegetation for fuel is a significant problem in much of central and northern Uganda and a major problem in the eastern part of the country. At present it is not a problem in the west and south.

In the problem areas, shortages of wood and charcoal are one manifestation, increases in price and need supply is another. Before these concerns become regional issues there are a number of remedial measures that could be considered at this time including: replanting of woodlots, regional provision of small scale hydropower, and the beginning of an examination of other sources of energy including hydro-thermal in some cases.

Environmental Health

Uganda is a land of lakes and swamps as well as being in part semi-arid and arid. In a tropical climate, the lakes and swamps are one source of insect borne pests and diseases. As Langlands clearly shows in his atlas of disease in Uganda (1971), there is a strong environmental component to the problem. Figure VII (Childhood Malnutrition), provides a summary statement of poor nutrition among children visiting dispensaries. Figure VIII shows distribution of dispensaries. Taken together the maps note problems of environmentally related nutrition in the northeast and south. Though the figures are dated, they show linkages between resources and health. Any concern with development in Uganda must take into account this pervasive pattern of environmentally related disease and include a program to begin to take account of it.

FIGURE VII

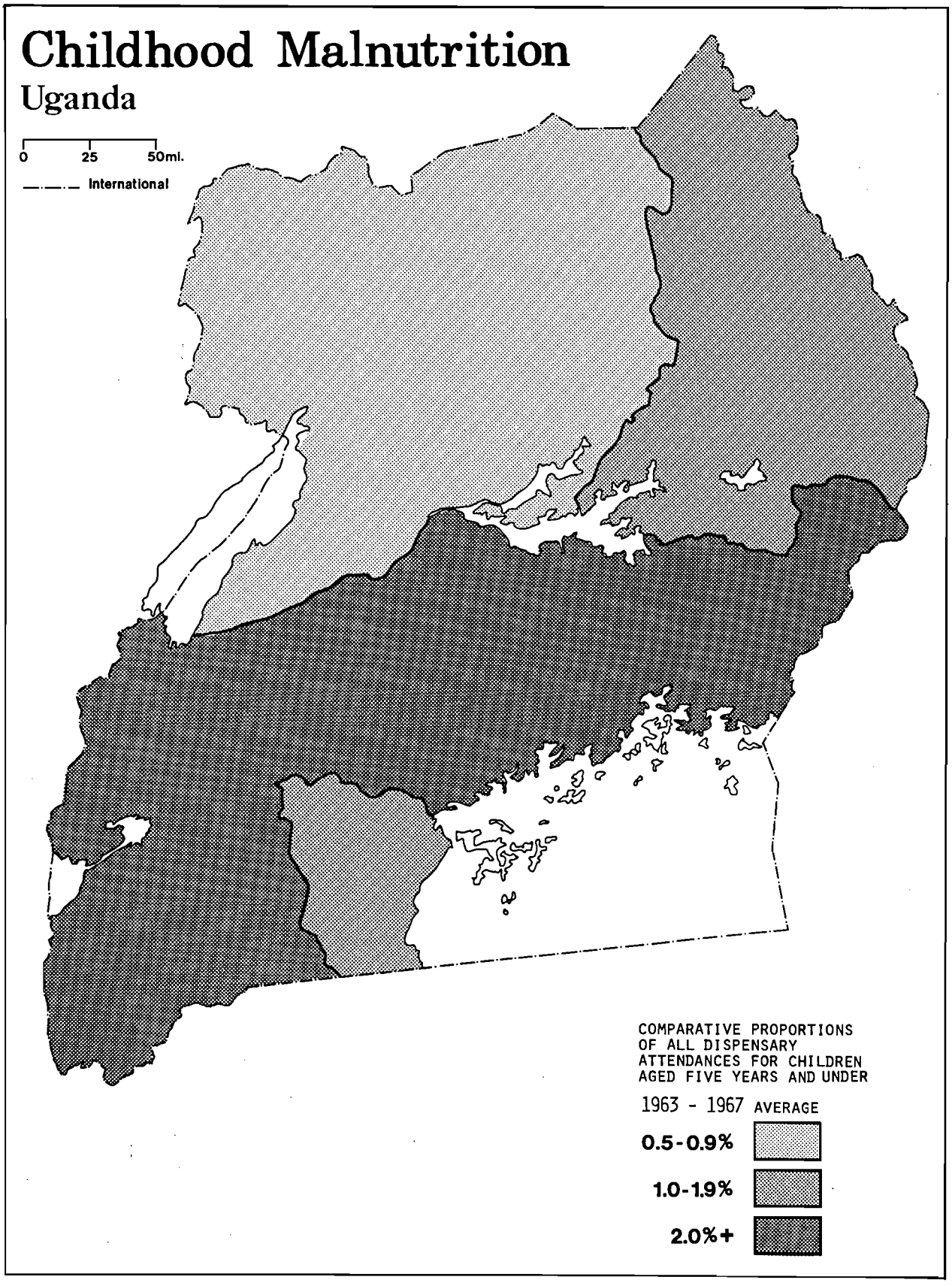
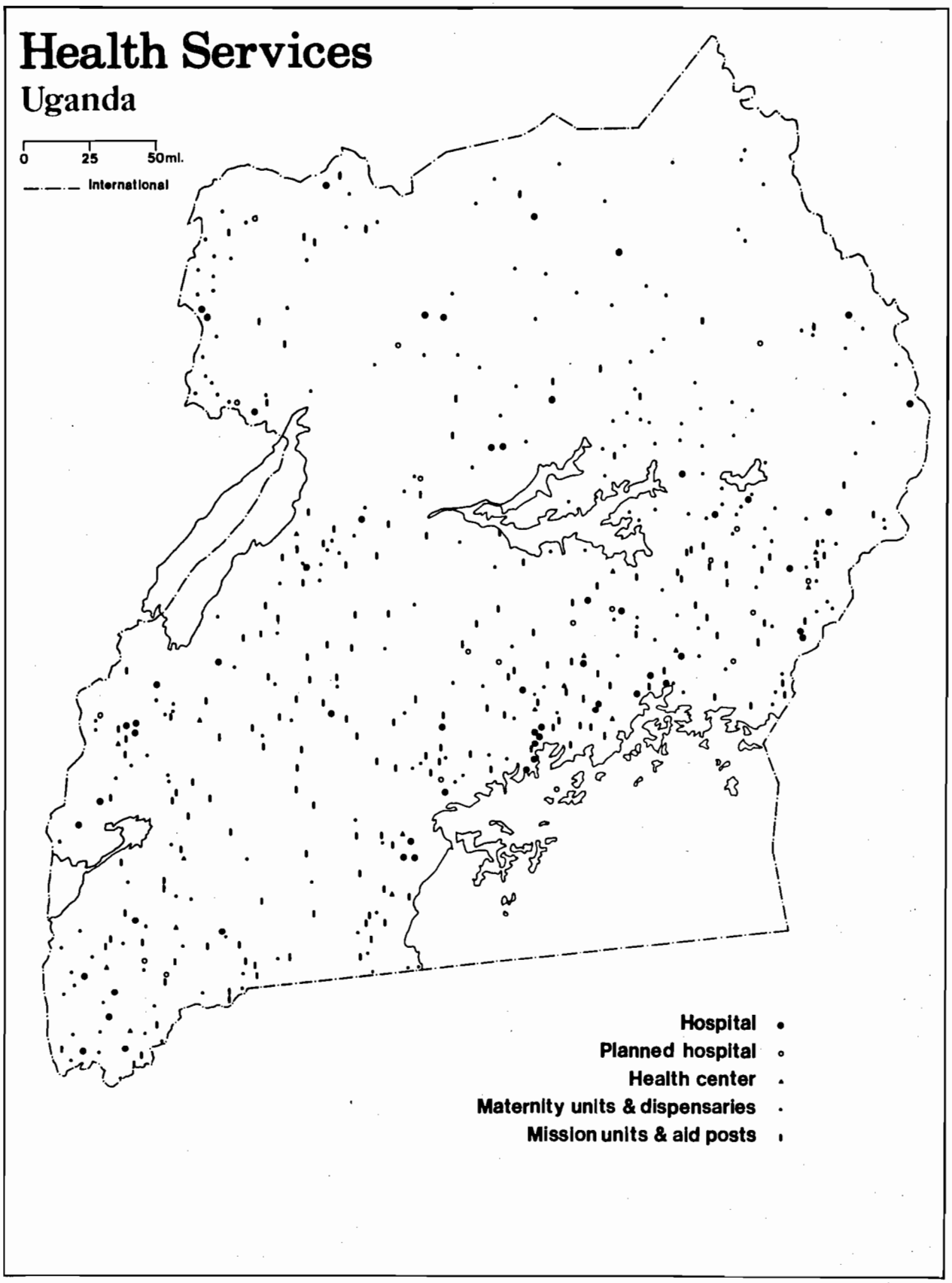

Childhood Malnutrition
Uganda
0
25
50mi.
International
COMPARATIVE PROPORTIONS
OF ALL DISPENSARY
ATTENDANCES FOR CHILDREN
AGED FIVE YEARS AND UNDER
1963 - 1967 AVERAGE
0.5-0.9%
1.0-1.9%
2.0%+

FIGURE VIII


Health Services
Uganda
0
25
50mi.
International
Hospital
Planned hospital
Health center
Maternity units & dispensaries
Mission units & aid posts

3.12 Population

Issue: Population growth rates in Uganda have probably averaged 3 percent over the last decade. The increase in total population by about one third creates new situations in terms of land availability, food needs, service needs and development prospects.

Although there are no reliable, recent census data, it is generally estimated that the Ugandan population is now growing at a three percent per annum rate. This is higher than the rate of a decade ago and there is still potential for a considerable increase in this rate if social services and economic conditions improve. It is not clear at all what impact the considerable loss of life in the Amin era and since will have on the general population levels and age distribution, but it will obviously only marginally affect the general trend.

The impact of these growth rates has been to increase the total population of the country by about one third to an estimated thirteen million. Most of this population still lives in rural areas. The urban population is now about 7 percent of the national total though growth rates in urban areas have increased to 8.5 percent. (This trend may have slackened somewhat in the last two years).

FIGURE IX

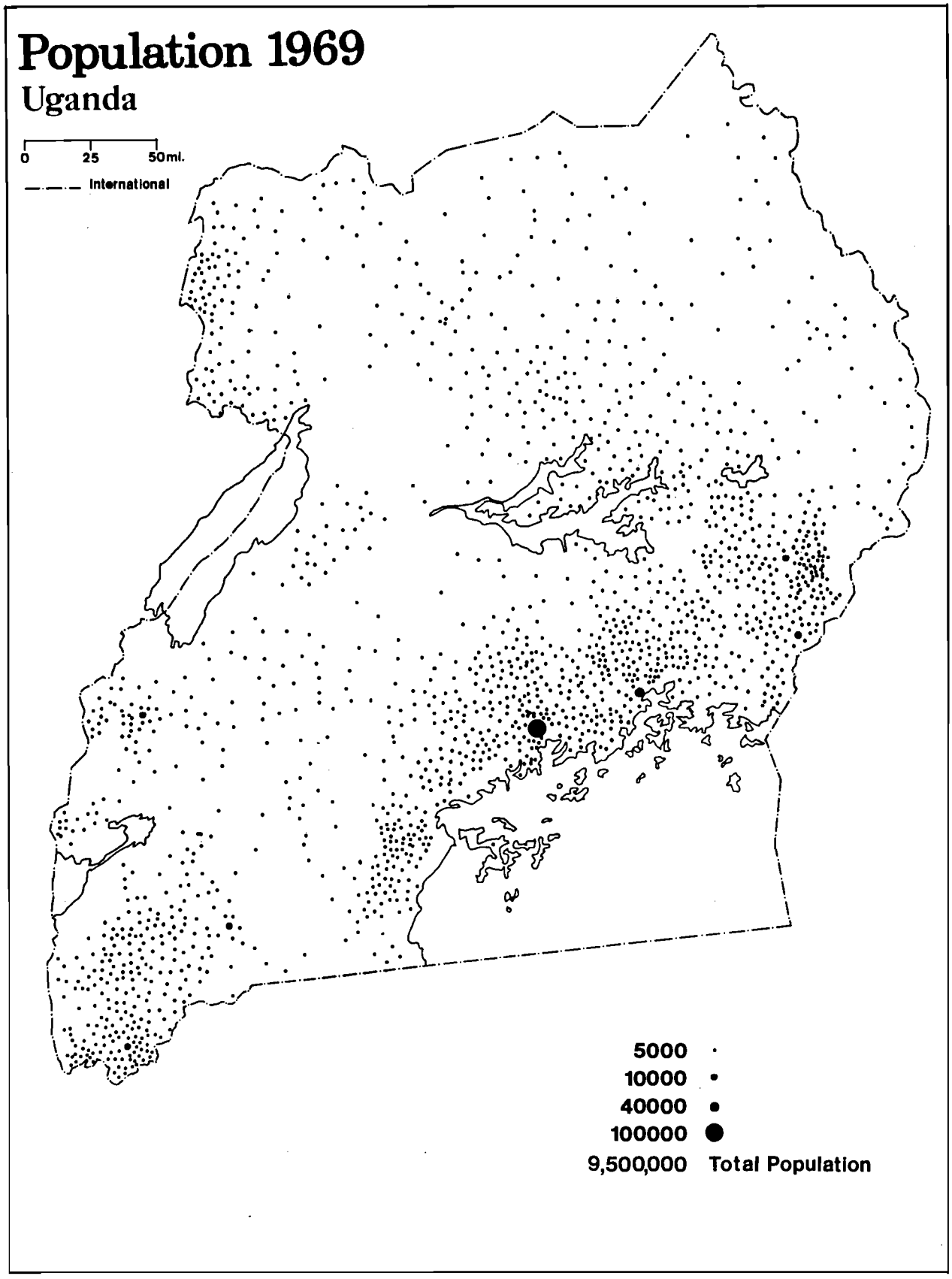

Population 1969
Uganda
0
25
50mi.
International
5000
10000
40000
100000
9,500,000 Total Population

TABLE 3.9

Population Growth Rates

	1960	1974-77
Urban	7.3	8.5 (includes in-migration)
National	2.8	3.0

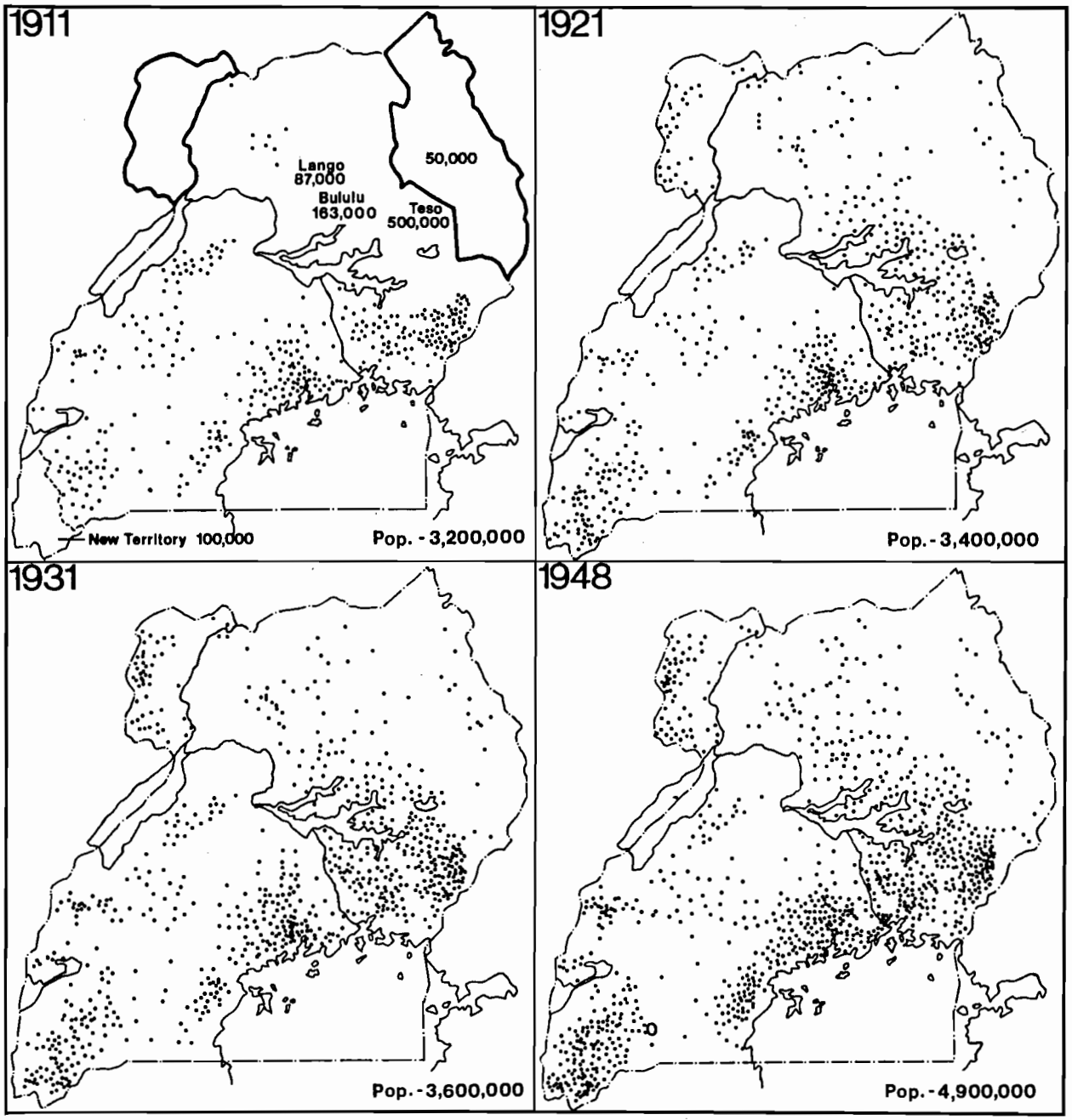
Source: P. Fleuret, USAID Report. Feb. 1980.

The rising growth rate at the national level has meant that the dependent population under 15 now makes up about 50 percent of the national total.

The impact of the addition of this group to the work force in the next ten years is considerable, but for the present a major problem is the pressure the large young population places on health and education services. Although both these services were improving in distribution and quality in the 1960's, the late 1970's show a deterioration in both. A rural health infrastructure exists, but is poorly staffed and supplied and a rural education infrastructure, better in the south than the north and east, is equally poorly maintained. A major issue in the rehabilitation period will be a restoration of these services but also there is a need for re-ogranization and expansion in the light of the population and demographic changes of the decade. Details of these changes are an important tool for development planning in both health and education fields.

FIGURE X

Population Change in Uganda



· Each dot represents 5000 people

Equally, or perhaps more fundamentally, the growth in population is changing the balance in Uganda's agricultural sector. The country has until now operated on the basis that agricultural land was in good supply and that extra people could be accommodated by an expansion of the cultivated area. Increasingly this is becoming less the case, though there is still much more good land available per capita than in neighboring Kenya for example.

In the more densely peopled areas of Bugisu and Kigezi, population density ranges upward to over 500 people per sq. kilometer while the national average of the people per sq. kilometer of agricultural land has increased from 72 in 1960 to 116 in mid 1970's and perhaps around 130 at the present.

For Uganda, the Commonwealth team assessment that by 1981 Busoga, Bukedi, East and West Mengo, Kigezi, Ankole and Masaka districts will all have population densities which severely restrict the possibility of new entrants to agriculture, is remarkable. If they are right, new attitudes to agricultural change and perhaps new attitudes to population growth are already overdue.

Fleuret (1980) spells out the importance of these issues for nutrition, particularly in children.

> "in Kabarole District, for instance, malnourished children brought to the nutrition rehabilitation unit came from the areas of desert settlement ... land security means that people must plant crops that are highly productive per unit area, and

> these crops (in Uganda usually plantains and cassava), although very high in calorie content and calorie production per unit input, are lacking in protein." (Fleuret, p. 14).

Although it has been conventional (and essentially correct) wisdom to depict Uganda as a country with few food supply problems, outside the dry areas of Karamoja, that situation is perhaps at a point of change. The current lack of data and general disruption makes it difficult to judge the longer term trends, or at least to pinpoint them. The general picture is pretty clear and food production, nutrition, and the pattern of agricultural development is clearly an issue for the eighties in Uganda.

4. NATURE AND DISTRIBUTION OF POVERTY IN UGANDA

4.1 Introduction

Statement of the Problem

Poverty in Uganda may be reviewed as a function of historical phenomena which have contributed to patterns of change and processes of spatial development in Uganda have affected the distribution of poverty in Uganda in a manner which has promoted higher levels of well being in certain regions of the country. While these regions have reaped the benefits of broad but discrete development schemes dating to the colonial period, they have recently been subjected to relatively adverse living conditions exacerbated by the period from 1971 to 1979 during former President Amin's rule. Those regions which were relatively excluded from the "modernization process" initiated during the colonial period, are currently facing more severe problems associated with a minimum subsistence level of living. Although there are new forces (such as increased 'farm-gate' prices) working toward an expansion of food crop production, other, predominant forces led many farmers to retreat into subsistence production.

Uganda was last reported to be one of the forty-five countries "most seriously affected" by the recent adverse economic conditions. The United Nations has also classified Uganda as one of the twenty-eight "least devel-

oped countries" (LDC) among all developing countries.[1] Uganda's estimated per capita GNP in 1978 was US $280.[2] At least three-quarters of the total GNP is derived from the agricultural sector. And since 90 percent of the population lives and works in rural areas (consisting of communities of less than 1000 people), nine out of ten Ugandans earn their livelihood from agricultural production and livestock raising.[3]

Hence recent impacts, here including physical damage as a result of the recent war, environmental and other constraints on the livelihood systems have aggravated all development processess in Uganda. Therefore, in addition to poverty problems which arose from a series of historical spatial patterns of development within and between livelihood systems, recent conditions have essentially caused a unilateral downward shift in relative levels of well-being. Certain livelihood systems however, remain relatively "better-off", not only because of their geographical proximity to markets for their exchange of goods but also due to access to secondary sources of income, mobility, and favorable climate and crop potentials.

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1. McLaughlin, M.M. The United States and World Development Agenda, 1979 (Praeger Publishers: New York) 1979, pp. 156-166.

2. International Agricultural Development Service. An Assessment of the Agricultural Sector of Uganda, 1980. (New York: March, 1980), p. 59.

3. Ibid., pp. 1-10. Total population as of mid-1979, according to this Report, was 13.2 million.

The process of development, as elaborated in development plans and strategies, has been discontinuous due to changes in the political 'status quo'. The manner and extent to which poverty problems were addressed by the incumbent political system varied extensively. During the period of colonial rule, commencing at the turn of the 19th century, Britain vigorously pursued development efforts in the Buganda region and, to a less extent, in Busogo, Toro, Bunyoro and Ankole districts. Primarily for reasons of political economic nature, the main development goal was "economic efficiency" and select "modernization". As Uganda's post-colonial period drastically changed the political 'status quo', the distribution of wealth remained in relatively similar dimensions and patterns. The wealthy "progressive farmers" were equally supported by the independent Ugandan government. They were both cultivators and employers, mostly Ganda. This was the group that had readily adapted to change, and because they produced cash crops, with the assistance of wage laborers, were relatively 'better-off' than other groups of peasants.[4]

During the period of Amin's rule, development goals were expressed in novel terms. Although Asians and other European groups owning commercial businesses were expelled

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4. Hay, M.J. "'Peasants' in Modern East African Studies" (Peasant Studies, Vol. 8, no.1: Winter, 1979), pp.18-24.

from the country during this period, training programs were not undertaken to develop an Ugandan managerial cadre. In 1975, more foreign businesses were expropriated along with their technical, administrative, and managerial cadre. Due to the loss of expertise and foreign capital, associated parastatals rapidly became inefficient and debt-ridden businesses. Since the Buganda region had developed more dependence upon modern sector facilities for cash crop as well as industrial production, the conditions of living deteriorated due to lack of spare parts, equipment which was largely obsolete, and transportation problems, which together instigated a general decline in output. The Commonwealth Report (Commonwealth Secretariat: 1979) detailed the major cumulative effects of mismanagement and dishonesty by the Amin Government on the agricultural sector. The major consequences were:

... the drastic decline in recorded production of the major agricultural export crops between 1970 and 1978;

... a particularly marked decline in productive capacity in the capital-intensive estate sub-sector;

... the overwhelming and increasing, dependence upon coffee for Uganda's foreign exchange earnings;

... the smuggling of large quantities of primary produce, especially coffee, across Uganda's international borders;

... the switch of agricultural resources from cash crops into food surpluses in areas with access to urban markets;

... intensified problems of low income in some of the remoter districts;

... the unsupportable debt burden placed on many of the key cooperative marketing unions through rising costs and falling throughputs of primary products.

During the Amin period, a significant change in the structure of the Ugandan economy took place. There was a gradual shift from market (monetary) to nonmarket (nonmonetary) activities, particularly in the Buganda crescent region. It has been stated that the share of nonmarket economy, which was 30 percent in 1969, has increased continuously during the 1970's to slightly less than 40 percent in 1978.[5] Although one reason for this is the increasing population in rural areas, the generally difficult economic conditions such as the erosion of producer prices and high inflation rates spurred farmers to subsistence production and magendo. Therefore, to the extent that the Amin period has affected the process of development in the Buganda region characterized by a "modernized" market economy, it has also affected the process of development in the peripheral districts, especially the traditional sectors within livelihood systems in the outlying areas. However, because the relative nature of poverty in the traditional sectors is dynamically different than the modern sectors, it may be suggest-

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5. International Monetary Fund. Uganda - Recent Economic Developments (Washington, D.C.: November, 1979), p.2.

ed that the overall economic degradation occurring during the Amin period has affected them in a less intensive way.[6] Since the traditional sectors were relatively excluded from the process of development prior to Amin's rule, the problems of poverty relate different dimensions within their distinct genres de vie.

Currently, the process of development, as expressed by former President Binaisa and the National Consultative Council (NCC), is characterized by the term "rehabilitation". The impending concerns are destabilizing problems such as magendo, which indirectly address the poverty issue. In one of Binaisa's recent statements, he noted:

> "In the next six months, (the) market will be flooded with consumer goods, raw materials, and spare parts, in an attempt to stabilize prices and break the black market which totally dominates commerce at present... It is not government policy to nationalise poverty which is already rampant. Rather, our policy is to exploit our country's great potential for wealth."

Hence, the process of development is currently one of short-term remedial efforts intertwined with long-term development goals earmarked to 1970 levels of economic development.

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6. Because the traditional sectors are relatively independent of and devoid from the spread of technological inputs and social services, it may be posited that, although they were relatively "worse-off" prior to the Amin period, the economic ramifications during Amin's rule are more far reaching for the modern sectors i.e., cash crop producers. For an example of this, read the following article: "Nomadism in Ankole as a Substitute for Rebellion". (Africa, Vol. 49, No.2: 1979), pp 147-158.

It is difficult at present to assess whether the emerging development plans will address the distribution of poverty or whether problems of poverty will be attacked on a discrete programmatic level. In an opening speech to the General Assembly on 6 October, 1979, former President Binaisa did attach the most importance to the agricultural sector and enumerated three broad thrusts to the agricultural development policy. These were:

1. to boost food production by promoting smallholder agriculture but also by encouraging large-scale farming;

2. to rehabilitate the export commodity sector; and

3. to review the whole structure of the agricultural system.

Obviously, the nature of the poverty problems in Uganda will be affected by the Government's efforts to improve the agricultural system. However, it is difficult to project how these efforts will affect the distribution of poverty, especially within and between livelihood systems which depend totally upon their agricultural output and livestock base.

Our analysis of poverty suggests that it must be defined both in terms of money income as well as non-monetary benefits such as assets of 'non-material' elements (i.e., education, right to employment). The approach includes the assessment of general magnitudes of economic well-being, identification of the poor in a regional or spatial context, their particular degree and kinds of dispossession, factors associated with poverty and change over time. The description and analysis of poverty in Uganda will be discussed within the framework of livelihood systems, set against an historical process of change within and between these systems. It will also identify limiting factors of development in Uganda which are exemplified in emerging patterns of change.

It seems evident that an assessment of changing poverty defined broadly should not be based on a single data set. No single source is fully reliable, and many critical data sets are unavailable. Measures of poverty associated with social services such as education, health, accessibility of water, and transportation are difficult to quantify in terms of their monetary value. The Physical Quality of Life Index is probably the "second best" attempt at estimating such variables."[7]

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7. The PQLI components are literacy, life expectancy at age one, and infant mortality. The model has derived weights for the three variables, theoretically capturing a range of living conditions which are not reflected in standard economic indicators. PQLI equals: 0.6484 (Life Expectancy) - 0.0977 (Infant Mortality) - 0.5278 (Literacy). For a complete explanation of weight derivations, refer to: Morris, David. Measuring the Conditions of the World's Poor. (Pergamon Press; New York: 1979) (Prepared for the Overseas Development Council).

The PQLI also faces data base reliability constraints. Information resource for calculating the PQLI is usually only available on the aggregate national level and therefore cannot usually be used to characterize regional variations in poverty levels. Likewise, externalities in consumption and production preclude reliance upon minimum caloric intake data. Measuring poverty by poverty lines serves very little purpose unless there is sound statistical support and reasoning for the choice of the line. If the poverty line is derived solely from income and expenditure data and not also from non-monetary indicators, then it will prove useless.[8]

The emphasis on relative, not absolute, levels of well-being derived from a multivariable analysis is justified because it reduces reliability on one data source and assists policymakers in designing anti-poverty policies and programs. Assuming that critical statistics are available (i.e., social service data reflecting regional distribution and accessibility) a systematic integration of various sources is needed in order to assess the nature and distribution of poverty in any developing country.

The data constraints with respect to Uganda are numerous due to the recent war and lack of record-keeping in recent years. Therefore, a "second best" approach is

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8. Scott, Wolf. "Poverty Monitoring in Developing Countries." (Development and Change; SAGE, London and Beverly Hills, Vol. 10: 1979) pp. 445-460.

required. Some of the data are outdated and not available on a district-by-district basis. Since the basis of analysis is livelihood systems, which are not delineated by district boundaries, estimates of the district data fits are the only way to approximate certain factors of well-being such as social service availability. Nonetheless, this approach seems more appropriate than other modes of analysis. The assumptions for such an analysis are clearly tied to our perceptions and definitions of poverty.

4.2 Description - Modes of Livelihood

Agriculture generates 50 percent of total income including subsistence production in Uganda, providing the livelihood of 90 percent of the total population. Of the total land surface, 78 percent is potentially agriculturally productive (See Table 2.3); 25 percent is used at any one time for cultivation and grazing (because of rotations and fallowing) and 20 percent of the farmed land is cultivated with cash crops.

In this section, modes of livelihood will be described and analyzed using Table 4.1 and Table 4.2. Agro-climatic Zones of Uganda is an appropriate breakdown to use for the explanation of livelihood systems. It is used by the Planning Cell in the Ministry of Agriculture in Uganda. Planners in the Ministry have divided the country into eleven zones, representing climatic regions and related agricultural systems.

TABLE 4.1

LAND USE PATTERN OF UGANDA (THOUSAND HECTARES)

	1961-65	1967	1972	1977
Total area	24,100	24,100	24,100	24,100
Land area (excluding lakes)	19,700	19,700	19,700	19,700
Water surface	3,630	3,630	3,630	3,630
Permanent swamps	770	770	770	770
Arable and permanent crops	4,379	5,272	5,393	5,423
Arable land	(3,469)	(4,151)	(4,157)	(3,909)
Permanent crops[1]	(910)	(1,121)	(1,236)	(1,514)
Permanent pasture	5,000	5,000	5,000	5,000
Forest and woodland[2]	8,711	8,711	1,535	1,535
Other land[3]	1,610	717	7,773	7,742

1. Includes coffee, tea, cocoa, bananas, sugarcane, and cashew nuts.

2. In 1961-65 and 1967 included both public and private holdings. In 1972 and 1977 only public forest is included. Private woodland was then moved to "other land."

3. Includes non-arable mountains, roads, and towns, as well as private woodland as noted above.

Parenthesis indicate sub-totals.

SOURCE: Planning Cell, Ministry of Agriculture and Forestry, 1979.

FIGURE XI

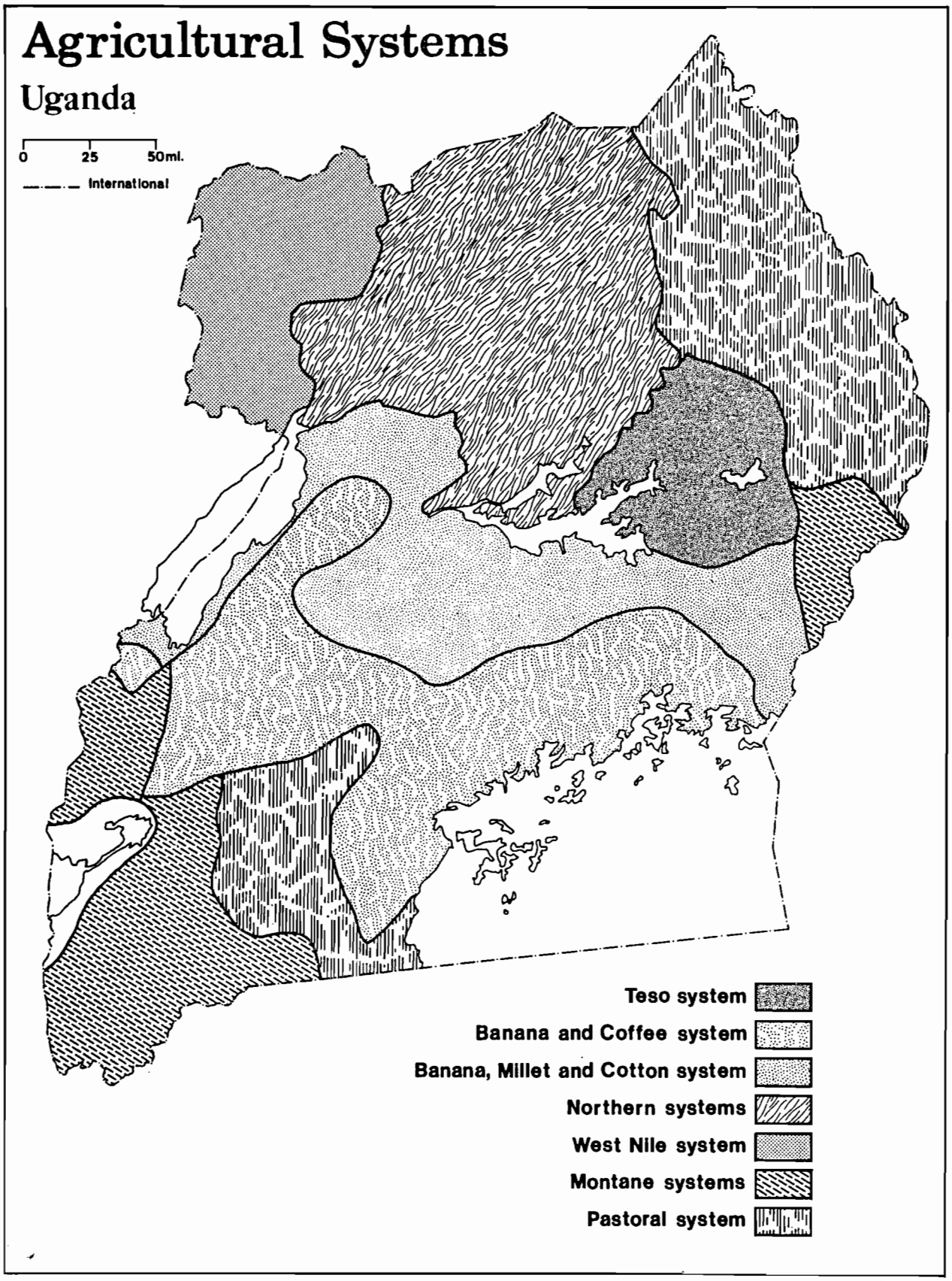

Agricultural Systems
Uganda
0
25
50mi.
International
Teso system
Banana and Coffee system
Banana, Millet and Cotton system
Northern systems
West Nile system
Montane systems
Pastoral system

TABLE 4.2

AGROCLIMATIC ZONES OF UGANDA

ZONE	DISTRICTS	AGRICULTURAL SYSTEM	MODE OF LIVELIHOOD
Zone I	Busoga/Budedi	Banana, millet and cotton system, with outliers of the main coffee-banana system.	Cultivation dominant
Zone II	Bugisu/Sebei	Montane systems: Arabica coffee, bananas (wheat and maize in Sebei).	Cultivation dominant
Zone III	Teso	Teso systems: finger millet, cotton and cattle keeping (mixed agriculture).	Cult/stock raising.
Zone IV	Karamoja	Pastoral system - cattle keeping also sorghum.	Stock raising/cult. (hunting & collecting).
Zone V	Lango/Acholi	Northern systems: finger millet, cotton, tobacco (some mixed agriculture also).	Cultivation dominant
Zone VI	West Nile/Madi	West Nile system: basic agriculture like Zone V but with predominance of cassava as staple food.	Cultivation dominant
Zone VII	Bunyoro/Toro	Arabic and Robusta coffee and banana system, Montane systems: heterogenous agriculture but basically bananas, coffee, tea.	Cultivation dominant
Zone VIII	Ankole	Montane systems in the west: Pastoral to the east: Arabica and Robusta coffee, tea, bananas, cattle.	Cult/stock-raising & nomadic herding.
Zone IX	Kigezi	Montane systems but with larger annual crop acreage than other montane systems. Sorghum is major staple. Arabica coffee, tea.	Cultivation dominant
Zone X	Lake Victoria Crescent	Main Rubusta coffee and banana system: Robusta coffee, bananas, tea, cocoa, sugar.	Cultivation dominant
Zone XI	Northern Buganda	Western extension of the banana-millet-cotton system, but now largely taken up by big ranching projects.	Cultivation stock raising (fishing)

SOURCE. Planning Cell, Ministry of Agriculture.

Cultural diversity and the climatic environment are two central themes that characterize the patterns of livelihood systems as well as how they change over time. This is particularly evident among the "Karamojong cluster" where worsening environmental conditions have altered livelihood activities. Differences in cultural background variations in rainfall distribution, and quality of soils help to explain the location of livelihood systems.

In addition, Table 4.3 Production Components by Agro-Ecological Zone for the Agricultural Sector in Uganda, is included in this section but was used only as a reference and not incorporated directly into the analysis. This table is not as detailed as Table 4.2. However, it does provide a general outline of five agro-ecological zones and the major cash-earning activities.

Livelihood Mode I: Cultivation Dominant (Figure XI & Table 4.2)

This livelihood system is by far the largest in terms of area of land used in rural areas and population. In these areas,productive activity focuses almost exclusively on the planting, sowing and harvesting of crops. Although a few livestock may be kept at the 'shamba' (usually chickens, sheeps or goats), they are of minor economic importance in sustaining the populations involved in this system.

TABLE 4.3

PRODUCTION COMPONENTS BY AGRO-ECOLOGICAL ZONE FOR THE AGRICULTURAL SECTOR IN UGANDA

Agro-ecological Zones	Major Cash earning Acti- Activities	Food Activities with good cash-earning Potential	Subsis-tence food Activities	Location by Administrative District
I. High effective rainfall, high altitudes	Arabica coffee Tea Pyrethrum temperate fruits	European potatoes Temperate vegetables, Dairy cattle, Bananas	Sweet potatoes Wheat Peas	S. Kigezi W. Ankole Upper Rwenzori)+ Toro) Bugisu)* Sebei)
II. High effective rainfall, middle altitudes	Robusta coffee Tea Spice crops Cocoa	Bananas Field beans Soya beans Dairy cattle Maize	Sweet potatoes	Masaka Mubende C. & S. Bunyoro E. Mengo)central W. Mengo) & south W. Busoga
III. Medium rainfall, middle altitudes	Cotton Tobacco Cashew Groundnuts Maize Sunflower	Sorghum Sim-sim Field beans Beefe cattle Dairy cattle	Finger millet Cassava Cow-peas Goats	N. Kigezi Lower Rwenzori W&E Bunyoro N. Buganda Acholi, Lango, Teso, Bukedi, E. Busoga
IV. Lower rainfall, middle altitudes	Beef Cattle	Sorghum Goats	Cassava Pigeon peas	Karamoja N.E. Teso
V. Areas with high insolation, middle altitudes	Sugar Rice Tropical fruits High value vegetables	Dairy cattle Poultry Pigs		Central & northern areas

+ Same district

* Mt. Elgon area

SOURCE: Commonwealth Secretariat. The Rehabilitation of the Economy of Uganda. (London: 1979).

Three district agricultural systems are included in cultivation-dominant livelihood group. They are:

A. Northern systems

B. Montane systems

C. Banana and Robusta systems

A. Cultivation Dominant: Northern Systems

The northern systems are primarily located in the short grass zone north and west of Teso and roughly includes Lango and Acholi districts as well as eastern parts of the West Nile and Madi districts. The area is characterized by cultivation of cotton, tobacco, (fire/air cured in W. Nile and flue-cured in West Nile, Acholi and Lango), sesame, pigeon peas, finger millet, sunflower and sorghums. Located in a northern agro-ecological zone, at medium altitudes of 600-1500 m. above sea level, the area receives moderate rainfall totals (mean annual rainfall is less than 1000 mm) with a single wet season. Most crops are seasonal and environmental risks such as drought are a feature. Most peasant farmers engage in mixed cropping in order to minimize soil erosion and the risks of crop failure. The dry season extends from November to March and is thus more prolonged and more severe than in the southern districts of Uganda. This largely inhibits large-scale perennial crop production.

Cotton has been Uganda's second most important export crop since the mid-1950's with significant amounts grown in the northern systems (perhaps 25-33% of national total). Between 1970/71 and 1976/77 cotton production fell from 412,700 to 74,422 bales of 185 kgs. each (Commonwealth Report: 1979). The rather massive abandonment of the crop is due to the low returns that farmers receive for it, as well as other constraints associated with the period of Amin's rule and the liberation war. The timely availability of dressed cotton seeds is critical since best results are yielded when seeds are planted in April or May. As of June, 1979, no dressed seeds were distributed in the Lango or Acholi districts for the 1979/80 crop. Such distribution has been erratic in recent years and consequently, peasant farmers have reduced their production of cotton.

As in the case of cotton production in the northern system, tobacco crops, both fire and flue-cured, have suffered tremendously in the last 9 years. Yields had fallen by almost two-thirds by 1978. There was only a tiny flue-cured tobacco crop in 1979.

Recently, the farmers have planted food crops rather than these two cash crops in the northern system and have been forced to retreat further into subsistence production. On the macro level, the overall area under food crops increased by 14 percent between 1970 and 1978. The area under groundnuts fell by 32 percent and finger millet by 7 percent.

A number of environmental factors, such as poor mid-year rains in 1979, an outbreak of cassava mite (especially in the West Nile/Madi districts) and ensuing drought, have recently made the northern systems very vulnerable to the incidence of famine. Normally in such circumstances Acholi is able to obtain ample supplies of food from neighboring Lango areas, however this has recently been impossible due to the breakdown of the road transport system. Food is also being sold in the north to Juba (Sudan) which also impairs adequate distribution of local food supplies.

B. Cultivation Dominant: Montane Systems

The montane systems are based on the production of bananas as the main food crop, while tea and arabica coffee are the main cash crops which are grown on a perennial basis. The montane systems differ from the Banana and Robusta system (discussed in the next section) because of differences in altitude, relief and population densities. The montane systems are found in the high altitude regions of southern Kigezi, western Ankole, northwestern Toro, and eastern Bugisu/Sebei (Mt. Etgon area) distircts. The altitude in these regions ranges from 2100 to 4500 metres and these regions are the more mountainous areas of the country.

The greater proportion of Uganda's arabica crop is grown on the slopes of Mt. Elgon. On average, arabica coffee has a higher unit value than robusta; in 1970 it constituted 6 percent of total coffee production but 9 percent of export earnings. Much of the arabica coffee produced in the Mt. Elgon area has been smuggled to Kenya on an extensive scale. It is estimated that 20-40 percent of the 1978/79 production was smuggled, owing largely to the low producer prices charged by the Bugisu Cooperative Union. Roads have deteriorated greatly since 1972 and the Union's lorry fleet was greatly depleted.

The tea in the montane systems is grown under three management systems:

1. Private Estates
2. Government Estates
3. Small Outgrowers (under the auspicies of the Uganda Tea Growers Corporation)

Of the 20,906 ha. of tea, 9,500 ha. are grown by the small outgrowers. Roughly 80 percent of the smallholders tea area was abandoned during Amin's rule. However it is retrievable. The average size plot of tea for the small outgrower is 1.16 ha. (there are a total of of 11,000 small outgrowers). The unreliability of the transport collection schedules due to vehicle maintenance problems and problems and the poor quality of the feeder roads are some of the initial reasons why tea production has dropped.

tea

More importantly, the shortage of labor (caused by the high inflation rates and thus the marked reduction of the workers' buying power) has had a large impact on the tea production levels. The workers abandoned the estates and went home to produce their own food and feed their families and sell surplus. Tea estates are now using one-third of their usual labor requirements. From 1975 to the present, the tea leaf has been picked only every 21 days instead of the regular time interval of every seven daya.

Banana production, however, has increased during the period 1971 to 1978 from approximately 300,000 to 355,000 metric tons. The largest acreage cultivation with any single crop is the banana.

C. Cultivation Dominant: Banana and Robusta Systems

These systems are located in the southern part of Busoga/Bukedi districts, Bunyoro/Toro districts and in the Lake Victoria crescent districts. According to an estimate made by the Ministry of Agriculture, robusta coffee occupied a land area of 200,000 ha. in 1977. The cultivation is mainly located in the Buganda region with the smaller outlying areas of the Busoga/Buhedi districts and Bunyoro/Toro districts accounting for less than 7 percent of the total coffee (robusta) area.

Robusta coffee is grown almost entirely in the smallholder sector. Large-scale production recently declined to less than 2 percent of the crop. The robusta coffee is

often interplanted with bananas, and sometimes with annual crops such as beans or sweet potatoes.

In some areas, this system is modified by the substitution of cotton and millet for robusta coffee crops.

Analysis

The areas characterized by the three groups of systems described above are among the more economically advanced parts of the country. Earlier sections have outlined how they have steadily improved their relative position during this century. This trend has been halted during the last 10 years, though the area is still better-off than most other parts of the country.

However, within the area there is a range of different social and economic categories. Various levels of producers exist within the systems. Wage laborers are common in both the Montane and Banana and Robusta systems. They are employed by the land owner. The following categories can be distinguished:

(1) Small-holders (approx. 1.15 ha. for tea plots, 2-4 ha. for coffee and banana plots)

(2) Government Estates

(3) Private Estates

Government and private estates are currently involved with the production, however, they were previously involved

to a greater extent in the coffee sector.

The wage laborer and the small-holder make up most of the economy of those systems. In good times both have a modest but sustainable living. But it is estimated that the wage laborer is relatively 'worse off' than the small-holders especially under current conditions. The wage laborers' family security depends largely upon consistent demand for work, timely wage payments, and constant food prices. When such circumstances erode, he must retreat to his peoples' territory where he and his family can subsist upon their own production. This requires mobility and the ability to fit into a livelihood system of minimizing future risks against adverse conditions. Wage laborers in the area have been drawn from the north and northeast and also from Rwanda and Burundi. Under the difficult economic conditions of the last few years many of each category have returned 'home', though many remain in apparently impoverished conditions.

On the other hand, the small-holder is not usually mobile. At the least, he has a plot of land from which he can reduce cash crop production while increasing his food crop production, given low producer prices and other distortions induced by the recent liberation war and its aftermath. The small-holders operating in both the Montane and Banana/Robusta systems can weather these adversities much better than the wage laborer, though their levels of living have probably dropped considerably, except for those

people actively engaged in black market transactions.

Livelihood Mode II: Cultivation/Stock Raising (Figure XI Table 4.2)

This livelihood system is characterized by corps which provide the most important elements of subsistence, but that staple diet is usually supplemented with dairy produce. A significant portion of farmers' time and labor is given to animal husbandry, although this varies depending upon the locality in Uganda.

The western part of West Nile district, Teso district, Ankole district, and northern Kigezi district, and some parts of Lango and Acholi districts are the main areas under this livelihood system.

This livelihood system is ecologically located in the "short grass" zones which are below the 1800 m. altitude level. The agricultural systems are based on annual cropping, the main food crops being finger millet, sweet potatoes and/or cassava with cotton as the principal cash crop.

Cattle keeping is another element of this livelihood system, and although there is not widespread integration of crops and stock in the systems practiced, the cattle are at least housed on the holdings except during the dry season when the herds may be moved further afield.

It is hard to make firm distinctions between this and the preceeding systems in some borderline cases. One way of clarifying the distinction is to identify regional

cattle use. Some tribes may use the dairy produce to supplement their diet where other tribes keep cattle for purely social reasons such as for gifts, a symbol of status and wealth, or for a safeguard upon potentially high risk circumstances such as drought. In may be plausible to include the latter cattle use as part of the cultivation dominant livelihood system with the former cattle use classified under the cultivation/stock raising livelihood system.

The Teso district system is contained within this livelihood system of mixed agriculture, including primarily finger millet, cotton and cattle keeping. The western part of West Nile/Madi districts produce cassava and millet in addition to cattle keeping. Ox drawn implements are used for cotton cultivation.

Analysis

A number of factors need to be weighed in determining the ranges of relative well-being within this livelihood system. The major factors are:

1. Population distribution, density;
2. Carrying capacity of the land area and the ratio of grazing land to land under cultivation;
3. Number of cattle per person; and
4. Environmental conditions.

Food crops are the main source of family food and they also provide small amounts of cash income to purchase other goods. In the Teso district, however, cotton production, under normal economic conditions, would provide greater cash income for the small-holders. Little cotton is grown at present though the potential exists for rapid restoration of cotton production.

The three regions of this livelihood system (N. Kigezi/Ankole, Teso, and W. Nile/Madi) have quite distinct population densities. Northeastern Kigezi/Ankole districts and the western part of West Nile are more densely populated than the Teso district.

Table 4.4 also indicates land and resource scarcity by district. Both Ankole and Kigezi districts are estimated to have 81 percent of maximum potential population on the land area by 1981. The three areas in Table 4.4 with over 80 percent of potential are regarded as areas where new land is hard to obtain.

TABLE 4. 4

INDICATORS OF LAND AND RESOURCE SCARCITY BY DISTRICT

District	(1) Estimated net migration to other districts 1959 to 1969 (minus means out-migration)	(2) Estimated 1981 population as % of maximum potential population on the land
	(000's)	(%)
Busoga	52	94
Bukedi	-20	
East Mengo	99	82
West Mengo	126	
Kigezi	-100	
Ankole	38	81
Masaka	42	
Teso		68
Bugisu	-8	
Sebei	2	
West Nile	-43	57
Madi	7	
Bunyoro	98	
Toro	74	41
Mubende	38	
Karamoja	9	37
Lango	-5	
Acholi	30	34

SOURCE: 1. Republic of Uganda, Report on the 1969 Population Census, Vol. IV. The Analytical Report, Statistics Division 1976.

2. Calculated from FAO 1976; Table 1 and Annex V, Table 4.

It is likely that pressure on land resources is greatest in Kigezi and Teso districts, where net out-migration has also been occurring.

Statistics indicate that Teso/Lango districts have greater numbers of cattle per person than Kigezi/Ankole or W. Nile districts. The ratio of cattle to persons is roughly 1:1 in the Teso district, it is at most 0.49:1 in the other areas. This may be an indication of greater wealth in Teso district since cattle fulfill nutritional requirements and are in general a form of social security and safeguard against risk.

The climatic environemnt largely dictates the patterns and levels of agricultural productivity. The amount, timing and duration of rains are very significant in the Teso district where a partially mechanized (cotton crop areas), non-irrigated annual crop agriculture is undertaken. It is noted in a Teso district study that both financial and dietary need are 'extremely' dependent upon the 'abundance and regularity of rains' (Vail: 1972). The Teso district is located at the northern end of the equatorial bimodal rainfall zone. The entire district has 90 percent probability of receiving 36 inches but the degree of variability in the timing of rains presents serious problems for this livelihood systems.

The West Nile/Madi districts under monomodal rainfall patterns have a dry season which extends from November to March and is thus more prolonged and of greater sever-

ity than in the other districts within this livelihood systems. The potential for drought and food shortage is much greater and livelihood consequently more at risk.

Livelihood Mode III: Stock Raising/Cultivation (Figure XI and Table 4.2)

This livelihood system is located largely in the Karamoja district with some areas in the Ankole district. Under this livelihood system, there is a strong emphasis on stock raising, and cattle are the major foci of almost all aspects of economic and social life. Grain is always an important food even though produce from family herds constitutes the bulk of the diet. Hence, the cultivation of cereals such as millet, sorghum, and maize is an important secondary activity.

Table 4.5 shows the range of cattle per person, by county. The counties are essentially tribal units and 'are to some extent zones of geographical unity in which the (livelihood) of the tribe operates' (Baker: 1967). These figures are obviously very much out of date and the balance may have changed considerably in the last few years. These do illustrate that in more normal times, the Jie have the largest number of stock per head of the population while the Labwor, with a higher mean annual rainfall and greater agricultural opportunities, have the lowest number of stock per head. Most of the acreage in the Karamoja district under cotton (estimated at 20,000 in 1963) is located in Labwor county.

TABLE 4.5

CATTLE PER HEAD OF POPULATION: KARAMOJA 1963

County	Population	Average number of Cattle/Person
Dodoth	32,206	3.2
Jie	23,254	5.6
Labwor	10,280	1.09
Bokora	36,176	3.6
Matheniko	19,792	1.7
Pian	27,316	3.3
Upe	23,366	4.4

SOURCE: Report on Census of Agriculture 1963, and Uganda Population Census, 1957 (adjusted to 1963).

TABLE 4.6

COUNTY STOCKING DENSITIES: KARAMOJA
WET SEASON CENSUS 1963: D.V.O. MOROTO

County	Area in sq. miles	Total Cattle numbers	Density per sq. mile	number of acres per head
DODOTH [18]	2,725	104,893	38	head 1:16 acres
LABWOR	576	11,145	19	1:33
JIE	1,796	129,694	72	1:8
BOKORA	1,940	90,770	66	1:9.5
MATHENIKO	1,393	34,590	25	1:25
PIAN	1,640	128,317	55	1:11
UPE	2,146	104,462	48	1:13
TOTAL	12,216	603,871	57	1:12

SOURCE: 1963 report on the Uganda Census of Agriculture, Vol. 2, Entebbe 1966.

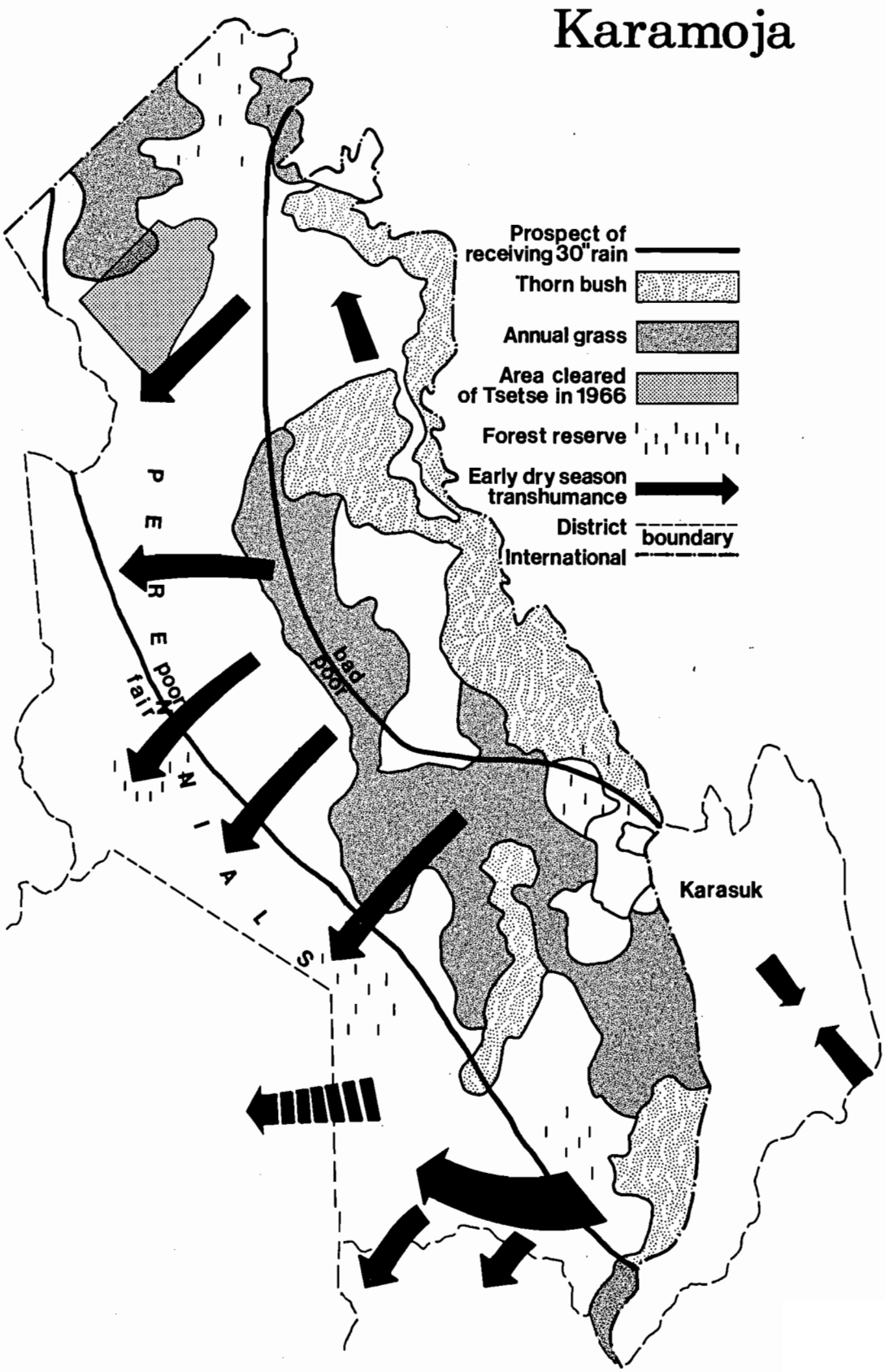
The low figure of 1.7 cattle per head in the Matheniko reflects the greater area under sorghum and a lesser dependence upon animal subsistence. Central and eastern Karamoja are the settled manyatta zone which forms the permanent home of many of the Karamojong not involved in transhumance (i.e., the elders, children, and some women).

Analysis

It is evident that environmental conditions, especially the variability of rainfall, impose severe constraints on this livelihood system and there are lower levels of well-being than elsewhere in the country. This is dramatically highlighted by the current drought in Karamoja aggravated by loss of cattle due to the war and subsequent disorders.

In normal times, most of the tribal units in the Karamoja, with the exception of the Labwor and Dodoth, are involved in transhumance activities at the onset of the dry season. In general the movement involves a broad southwestward trek of the Bokora/Matheniko herds to the seasonal swamps and dry-season grazing along the Teso/Karamoja boundary. The Pian move their herds across the district boundary to the mountain massifs of Elgon as well as to the Kadam mountains in Upe territory. The Jie move along traditional transhumant routes to the west toward the Acholi border. In the beginning of the wet

FIGURE XII


Karamoja
Prospect of receiving 30" rain
Thorn bush
Annual grass
Area cleared of Tsetse in 1966
Forest reserve
Early dry season transhumance
District boundary
International
P E R E N I A L S
poor
fair
bad
poor
Karasuk

season the herders move back to the settled homesteads or manyatta areas (Figure XII).

Since the sorghum areas are located in the central Karamoja or the settled manyatta zone, it receives the full impact of a drought which has historically occurred once in every three or four years. There is a high correlation between crop failure, drought, and cattle sales (Baker: 1967). When the drought is severe and the crops fail, the Karamojong fall back heavily on stock sales to convert the animals into cash for the purchase of subsistence supplies. Unlike the Masai of Kenya, the Karamojong do not regard their stock only as a means of subsistence but rather as a source of income in periods of extreme environmental circumstances. The tragedy of the present situation is that the cattle have been stolen and are not available for sale.

The water shortage problem is also another environmental constraint, but also symbolic of the social attitudes of the Karamojong, who attempt to carry the highest possible number of stock, regardless of physical conditions. The prestige and 'wealth' status which cattle bring are measured in numbers and not in quality of the herd. The environmental trends of overgrazing, diminishing pastures, worsening patterns of vegetation, and cattle diseases all contribute to the severe problems faced by the Karamojong of this livelihood system.

Livelihood Mode IV: Nomadic Herding (Figure XI and Table 4.2)

This livelihood system is highly specialized and involves the frequent movement of livestock in response to the need for grazing lands and water. If there are some areas, they are generally characterized by small clusters of homesteads which are established temporarily near a common waterpoint and pasture. Subsistence is obtained almost entirely from domestic stock such as cattle, camels, goats and sheep. Cultivation of cereals may be practiced in a few restricted areas, but with very small yields. This livelihood system is distinguishable from the stock raising/cultivation system only in that cultivation, if at all, plays a very minor role in the activities of the people, and that homesteads are temporary. This is in contrast to the settled manyatta zones of the stock raising/cultivation system.

The only known group in Uganda to follow this livelihood system are the Bantu-speaking Hima, a group of "pure" pastoralists who are dispersed throughout the short-grasslands in the eastern part of the Ankole district. It is estimated that they represent no more than 5 percent of the Ankole district population. The Hima unit is a household including a cattle owner, his wife (or wives), male descendants and daughters-in-law. A few households may band together temporarily and move in search of newer pastures; or a household may move alone. The Hima are called 'pure'

breeders of cattle because their entire household is nomadic and they shun all occupations but cattle husbandry.

Analysis

Since the pasture is so rich in Ankole district, Hima movements mainly reflect the distribution of water, which is relatively scarce (Yitzchak Elam: 1979). Annual rainfall in the traditional grazing areas of the east, center and southeast of Ankole varies from 30 to 45 inches and falls in a bimodal pattern. The rainfall is substantial, fairly constant (more so than the Teso and Karamoja districts) and well distributed throughout the year.

However, since the land area has no reservoirs of running or still water, regular provision for cattle is difficult. During the rainy seasons, pools of water multiply; in the dry season, they decline in number. The indigenous response to these circumstances involves complete movements in search of water. Unlike the Karamojong, the nomadic movements are largely a function of chance and are not determined by traditional transhumant routes.

The livelihood system of the Hima almost completely disengages the households from some services in the Ankole district, including wells, boreholes, and dam water. Historically, they have never been involved in administration or other political affairs of the district, even during the periods of Ganda Chiefs' and Kings' rule. The Hima are keen to receive medical services for themselves and for

their cattle. Because there are rich cattle owners, the Hima have been noted to promise rewards to the tax collectors for discrete use of these services. Little data are available as to the extent of their use of these services, but it is noted in the literature that they are one of the wealthiest livelihood systems existing in Uganda (Ibid: 1979).

Livelihood Mode V: Hunting and Collecting (Figure XI and Table 4.2)

Specialized techniques are employed under this livelihood system in order to exploit several species of wild game and to collect wild plants (roots, seeds, fruits, berries). The population is semi-nomadic and localized resources are often possessed and utilized by specific bands. All hunting and collecting groups maintain some trade links with the surrounding livelihood systems. This livelihood system is solely located in northeastern Uganda, just southeast of the Kidepo Valley National Park in the Karamoja district. The altitude ranges from 1500 to 2500 metres. The Teuso tribe are a small percentage of the population and are scattered along the face of the Rift Valley escarpment.

Analysis

Few data are available on the relative well-being of this livelihood system. It is noted that the Teuso now grow tobacco and some cereals and that "faculta-

tive symbiotic arrangements" may exist with the Karamojong (Good: 1964). Given their geographical location, they probably have little access to social services and few opportunities for cash income. Given the amiable environmental conditions, the Teuso may be relatively 'better off' than certain tribal units in the stock raising/cultivation systems. These judgments are hypothetical and inconclusive due to a lack of recent data.

Livelihood Mode VI: Fishing

This livelihood system is practiced by a small sector of the population. They are primarily located in the swampy eastern margins of Lake Kyoga. The Kenyi and Nyuli tribes subsist almost entirely by fishing.

Some fishing is also done off the coast of Lake Victoria near the West Mengo district shores, but little information is available on the size of the catch and the number of people involved.

Analysis

Very little information is available on this livelihood system.

5. Further Reading:

The literature on Uganda's development issues reflects a pattern not unassociated with the political and social events of the country. The colonial era was influential in leaving behind a rich heritage of research. Makerere University, before 1970, was a thriving center of research publishing monographs, papers and journals, and acted as a stimulus for economic and social science studies. Since 1970, its continuance has been precarious and it is still unclear what stage of reconstruction it has attained. For recent material therefore, we are dependent on reports from consultant groups and visiting specialists. This duality is reflected in our recommended reading.

Baker, P. Randall 1967. Environmental Influences and Cattle Marketing in Karamoja. Kampala, Makerere Universtiy, Department of Geography. Occasional Paper No. 5.

Baker, P. Randall 1971. "Agricultural changes in Bunyoro 1954-68". In Studies in East African Geography and Development ed. by S. Ominde London: Heinemann.

Baker, P. Randall 1975. Pastoralism and Progress: Readings on the Development of Traditional Cattle Herding Areas in Africa. Development Studies Reprint, no. 6. University of East Anglia.

Col. Leanne, Marie 1980. "Food, Population and Reconstruction in Uganda". Paper read at the African Studies Association, Annual meeting. Philadelphia, October 15-18. 1980.

Commonwealth Secretariat 1979. The Rehabilitation of the Economy of Uganda. 2 Vols. London: Commonwealth Secretariat.

Dak, O. 1968. A Geographical Analysis of the Distribution of Migrants in Uganda. Makerere University: Department of Geography. Occasional Paper No. 11 Kampala: Makerere University.

Dyson Hudson, R. and N. 1969. "Subsistence Herding in Uganda". Scientific American 220: (2): 76-89.

Economist Intelligence Unit, Quarterly Economic Review: Kenya, Uganda, Ethiopia, Somalia. (Continuing: since 1971).

Family Health Care Inc. 1980. "A Working Paper on Health Services Development in Uganda: Issues Analyses and Recommendations". Family Health Care Inc., USAID contract No. AID/SOD/PDC-C-0198 Work Order No. 2. Washington.

Fleuret, Patrick, 1980. "Draft Background Papers: Community Level Conditions and Development Assistance Needs in Uganda". Washington USAID.

Gray, Beverly Ann, comp. 1977. Uganda: Subject Guide to Official Publications. Washington: Library of Congress.

Hall, S.A., and B.W. Langlands 1975. Uganda Atlas of Disease Distribution. Nairobi: East African Publishing House.

Herrick, Alison B. 1969. Area Handbook for Uganda. Washington: U.S. Government Printing Office.

Hoben, Sue, 1979. A Selected Annotated Bibliography of Social Science Materials for Uganda followed by an Expanded Bibliography. Washington: USAID/AFR/EA.

International Agricultural Development Service. 1980. An Assessment of the Agricultural Sector in Uganda. Washington: USAID.

Jameson, J.D., ed. 1970. Agriculture in Uganda. (Second edition.) London: Oxford University Press.

Langlands, Brian. 1971. "The population mapping of Uganda". In Studies in East African Geogrophy and Development edited by S.M. Ominde. pp. 113-122 B. London: Heinmann.

Langlands, Brian, 1975. Uganda Atlas....see Hall, S.A.

McMaster, David N. 1962. A Subsistence Crop Geography of Uganda. The World Land Use Survey, Occasional Paper no. 2. Bude, England: Geographical Publications.

Oloya, J.J. and J.T. Poleman. "The Food Supply of Kampala: A Study in the Marketing of Basic Food Stuffs in an African Metropolis". Kampala: Makerere University Institute of Social Research.

Uchendu, Victor C. and K.R.M. Anthony, 1975. Agricultural Change in Teso District, Uganda. Nairobi: East African Literature Bureau.

Uganda, Department of Lands and Surveys 1962. Atlas of Uganda. Entebbe: Department of Lands and Surveys. (Second edition: 1967).

Uganda Government 1971. Third Five-Year Development Plan 1971/2-1976/7.

1977, The Action Programme: A Three Year Economic Rehabilitation Program 1977/8-1979/80.

The reader should also be aware of the resources of the East African Journal of Rural Development published by Makerere University and focusing strongly on Uganda. Since 1975 its publication has been spasmodic.

For current information on Uganda: African Business and New African are important sources, as well as current American newspapers, such as New York Times and Washington Post, who periodically 'notice' Uganda, particularly at times such as the recent elections.