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ZAIRE RURAL-URBAN PROFILE

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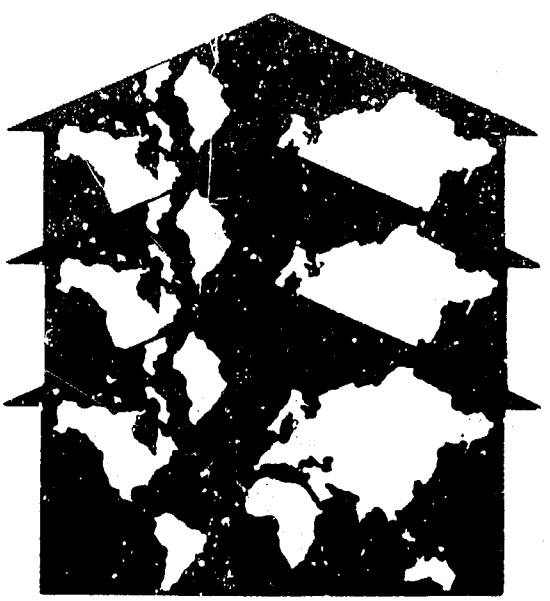

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I. EXECUTIVE SUMMARY

Introduction

Developing countries worldwide are experiencing high rates of urban growth, for which they are largely unprepared. Nowhere is this more evident than in Africa which has, over the past 20 years, seen massive population increases along with a gravitation of this population toward its primary, secondary and tertiary centers.

Urbanization has led to numerous, highly visible problems. Investments in urban areas for housing and infrastructure have often been misguided and counter-productive. During the 1960s and '70s in many countries, agricultural and rural development were neglected in favor of concentrating investments in the industrial sector, inevitably in the largest cities which already had the necessary minimum infrastructure and human resources to support these investments.

Over the past five-ten years, partially in response to the increased emphasis from the donor community on agricultural production, a new development focus associated with the phenomenon of urbanization has emerged. This focus concentrates on smaller population centers and the roles which they play in the promotion of regional rural development.

The Africa Bureau's May 1983 report on "Directions of the U.S. Development Program in Africa" noted that "Africa is now more rapidly urbanizing than the rest of the LDCs. Today's profile of Africa as a basically rural agricultural society will almost surely be radically modified by the year 2000 if urban growth rates of the last ten years continue. Since we have defined our strategy as one of long-term perspective, we must understand how Africa's rural-urban profile will change over this period. Inherent here are important linkages such as urban food consumption patterns and linkages between urban consumers and rural producers."

Zaïre is no exception to this phenomenon. In fact, by African standards, Zaïre is already one of the more urbanized countries on the continent, with a population which has been projected to increase from 29% to 39% urban from 1975-85. Unlike many other countries, however, there is a somewhat greater dispersal of this population into centers other than one great primate city, although clearly Kinshasa has become far and away the largest center. It is this basic urbanization trend which has been examined in the Zaire Rural Urban Profile in order to add another dimension to existing country information and assessments, with the aim of facilitating more knowledgeable long-term planning and incorporation of this perspective into current programs.

Objectives

The Rural Urban Profile (RUP) has two major objectives:

1. The RUP provides an overview of the national pattern of settlements, especially the growth of primary, secondary and tertiary centers which has taken place over the past 10-15 years. On this basis, it examines the urban problems encountered by this growth, the policies which have been adopted to meet these problems, and the changes in urban centers' population which should be anticipated over the next five to ten years. It also develops a sense of the reasons for this continuing growth of urban areas.
2. The RUP takes a closer look at the growth actually taking place in one smaller urban center, Kikwit, a city which is strategically important to the USAID country development strategy. The activities taking place within Kikwit and the roles which are played by this urban center are examined and analyzed. Prospects for the city's future growth, and urban-based measures to further promote development in the region are evaluated in the context of providing support for the development strategies already being pursued, particularly those of USAID. Population changes are examined and are related to the growth in services and activities in the town.

Methodology

The RHUDO consultant's mission took place over a five week period in Zaïre from October 8 to November 11, 1983. The data collection methodology included two-and-a half weeks of meetings with national urban planning, transport, and statistical agencies, USAID and other donors in Kinshasa followed by eight days of case study surveys and discussions in Kikwit, a city of the Kwilu, and the largest urban area in Bandundu Region. As it is the current focus for AID area development activities, Kikwit was chosen by USAID Kinshasa and the RHUDO as the most strategically important smaller urban center for a case study investigation. The Bureau des Etudes d'Aménagements Urbains (BEAU), was the primary Zaïrian collaborating institution. Citoyen Mbuluku Nsaya, a BEAU urbanist, worked closely with RHUDO consultant Deborah Zubow Prindle on the Kikwit data collection phase.

Secondary data was the primary source of information, supplemented by extensive interviews with GOZ representatives,

parastatals, private voluntary agencies (PVO's), and private sector businessmen and residents. During the Kikwit mission, a socio-economic survey was designed and administered in Kikongo to 76 households through the cooperation of AID CEPLANUT survey assistants. A limited number of tabulations were performed on this survey sample, and the findings are included in this report.

Summary of Findings

Over the next 15 years, Zaïre will have shifted from a predominantly rural to a predominantly urban population. Though the country's macro-economic crisis over the last ten years has gradually slowed the rate of urban growth, the urban population is still increasing twice as fast as the national population, mainly because of rural-urban migration. If current trends continue, there will be approximately 56 million Zaïrians by the year 2000, and 55% of them will be urban-dwellers, spread over a large number of urban places. This rural to urban population displacement will require serious reconsideration of national and donor development strategies so as to minimize possible political disruption and maximize potential economic growth opportunities. In order to redirect or redefine development strategies, dependable mechanisms for data collection, analysis and development planning at national, regional, and local levels will be essential.

Urban places are having impacts on the country's rural population through the services provided by the national system of cities. Though territorially vast (the size of Western Europe excluding the Iberian peninsula) Zaïre is blessed with a geographically well-distributed system of secondary cities and market towns, generated by historical and environmental factors, and reinforced by colonial administrative policies and transportation investments.

The existing distribution of market towns and the multiplying number of secondary cities in the regions provide a network of central places in which villagers from various areas are most likely to come in contact with each other. Transport links, both infrastructure and service systems, feed radially from surrounding villages into these towns and cities; in contrast, ring roads linking villages without passing through larger urban places are poorly developed through lack of demand. There has been a relative geographic stability observable in this system over time. Well-located to serve the densest concentrations of rural populations, these secondary cities

are providing crucial services to rural inhabitants especially:

(1) the provision of non-agricultural household and manufactured goods;
(2) the provision of essential credit, markets, and transport to markets for rural production, and headquarters for marketing agents;
(3) education above the primary school level;
(4) health services;
(5) administrative services.

Relatively few villagers spend their entire life in a rural area; in a 1983 survey, over two thirds of the village youth reported having spent a year or more in an urban area before returning to the rural environment. Migrants are motivated mainly by the search for education and employment, though case study material implies that health, commerce, and credit services also generate a large amount of periodic rural-urban movement. Almost two-thirds of all urban migrants are dependents accompanying household heads who are seeking education or employment.

The burden of urban unemployment seems to be weighing most heavily on young rural migrants, and though their rate of reverse migration (from urban to rural areas) has increased exponentially, surveys indicate that almost half of these returnees would have preferred to remain in the urban area. If GOZ donor policies, and macro-economic conditions combine to alleviate the national economic crisis over time, the rate of rural-urban migration can be expected to increase dramatically in consonance with the aspirations reported by village youth.

One effect of these large scale movements of rural migrants towards temporary or periodic urban residence is the generation of a significant socio-economic attitudinal change in rural populations, who are becoming increasingly biased towards an urban lifestyle. This is having an impact on the demand for urban goods and services, accelerating the move away from subsistence agriculture towards a cash economy among Zaïrian peasants. For example, the orientation of rural populations toward urban consumption patterns is generating an increasing demand for savings and credit functions in the secondary cities accessible to rural residents who need capital for rural off-farm employment in commerce and cash for consumer purchases. Meeting this demand will provide the opportunity to establish or improve credit programs for start-up equipment and capital to support commercial agricultural production, the modern informal sector, and processing ventures.

Along with attitudinal changes, modernization and technological innovations are being exported from urban to rural areas. For years donors have been designing projects for the rural areas on the premise that innovation is spread from village to village and therefore siting rural change-oriented projects in selected villages, hoping for lateral horizontal diffusion. Peasants now seem more likely to adopt innovations which have the aura of prestige gained from their urban origins. Furthermore, peasants are more likely to come in contact with innovations in cities than in other villages because of existing rural-urban linkages which are becoming strengthened over time.

An important but underdeveloped role for secondary cities and market towns is providing formal, nonformal, and apprenticeship training for rural youth in artisan and technical trades. Currently, formal artisanal vocational training is mainly available only in Kinshasa, encouraging rural youth who desire non-farm employment to migrate all the way to the capital, and lowering the probability that they will return to their own region to start their businesses afterwards. At the other extreme, most donor-funded rural skills training projects accessible to rural populations have been small scale village investments which are neither cost-effective nor likely to make a significant impact on the urban orientation of village youth.

Realizing that most rural youth will be urban-dwelling for at least part of their lives and that among village youth there is a large demand for appropriate non-farm rural vocational training, AID and other donors are missing an important opportunity by not locating rurally-oriented training projects in strategically important cities and market towns where they might attract and redirect unemployed rural migrants into employment useful to rural development.

There is a serious need for decentralized planning and urban function development if the potential role of smaller cities in serving rural and regional economic and social development needs is to be actualized. Both colonial and post-Independence economic and administrative policy has favored centralization of decision-making and national expertise in Kinshasa. No capability for decentralized urban planning and investment generation exists, and secondary cities are not providing the full range of services which they could be providing to their rural catchment areas, if assisted by selected institution-building investments. In recognition of the critical need to build decentralized secondary city data bases and development plans, the RUP identifies in its

strategies section six key institutions with national urban, transport, and economic development planning mandates that should be considered for capacity-building assistance.

In spite of the importance of secondary cities in rural and national economic development, there has been almost a complete lack of public or private investment in secondary cities' infrastructure with clearly negative economic and social impacts. Only four secondary cities have developed diversified economies. At the household level, at least 62% of family budgets must be used for food purchases, requiring diverse economic survival strategies. One such strategy for urban dwellers has involved the increasing maintenance of simultaneous urban and rural residences, with the urban one left vacant during periods of rural cultivation and harvest. In view of current urban food price increases, an even higher percentage of the secondary city population is now likely to be engaged in this practice, evidence of the high level of rural-urban interface in even the largest Zaïrian secondary cities.

Living conditions for the majority of urban populations in secondary cities are grim. The lack of public investments to extend water, roads, housing, electricity, or transport services to serve these rapidly expanding urban populations has resulted in serious deterioration of the limited and over-burdened colonial era infrastructure in highly dense central areas, and the spreading of squatter occupation of unserviced hazardous slopes. Accelerating dependency ratios aggravated by high levels of rural in-migration are generating a demand for secondary city educational services which far surpass the capacity of current GOZ resources and local city services. The lack of job creation in most secondary cities, or even a national employment creation policy, is particularly frightening in the context of the high rate of urban growth.

In spite of the macro-economic constraints on GOZ resources, which are presented in the RUP, selective power and water investments in secondary cities identified as likely to be experiencing the most rapid growth would be necessary, though probably not sufficient, to alleviate some of the most binding constraints on decentralized economic development.

Alternative national transportation investment policies, now under consideration, will have critical impacts on the future ability of secondary cities to fulfill their rural service functions, especially in the marketing and commercial sectors. A more selective approach is recommended to the use of expensive and logistically difficult road systems to achieve national economic development. Road transport of

produce to markets, especially those in Kinshasa, costs five times more than river transport, but producers fear spoilage and theft losses through the delays and lack of security currently prevalent in river transport operations. Material in Annex III develops, in detail, an argument for the equitable distribution of inter-urban transport investment funds among improvements to the fluvial, rail, and road systems. This would enhance inter-regional equity in economic development, through supporting the marketing services to and from rural areas provided by historically important secondary cities on rail and river sites, which have experienced material disinvestment since Independence.

Though there is always a danger in overly generalizing from brief but intensive field surveys such as the one in Kikwit, this small Bandundu city of 160,000 seems in many respects to be typical of many Zaïrian secondary cities. Principle typical characteristics include: (1) the lack of post-Independence investment in public utilities (existing systems are heavily saturated, seriously deteriorating and consequently leave most of existing demand unserved); (2) the lack of local institutional capacity to control urban squatting and plan for future development; (3) the lack of rural development training programs within the city itself, to take advantage of the large flow of rural people into and through the city for short term, long term, or periodic residence.

The RUP examines the dynamics of Kikwit in the national perspective in a summary chapter highlighting rural-urban interactions and in greater detail in the second half of the document which focuses wholly on Kikwit as a typical secondary city and urban center of principal interest to USAID.

Major urban functions serving rural populations which have been examined in some detail in the second half of the Profile include Kikwit's provision of marketing services for rural producers (including collection and transport of export-oriented palm products and food destined for urban consumers in Kinshasa and Shaba); its provision of secondary school, technical, and superior level education for Bandundu rural populations, and its 500 km. radius of influence for the provision of specialized health services.

Transport, credit, and training are two areas in which opportunities exist to significantly strengthen the role of Kikwit, a secondary city, in stimulating rural and regional development. The collection and transport of rural produce to cash sale markets is monopolized at this time by a relatively

small number (ten) of Kikwit-based entrepreneurs who offer only the expensive alternative of road transport on their own terms. These entrepreneurs have developed vertically integrated rural-urban operations, including control of rural retail outlets, wholesale-retail and warehouse facilities in Kikwit and major surrounding market towns; their own truck fleets; and the few existing agricultural transformation industries. At present, all major GOZ and donor resources are being channeled towards this small number of high level entrepreneurs. Bearing in mind that road transport is far more expensive than river transport, the RUP recommends the upgrading of the fluvial transport system, particularly the operating procedures and service from Kikwit port to Kinshasa. This would require both Kikwit-based urban power and system-wide (Kwilu-Kasai river transport management) project investments, but ultimately would benefit both rural producers and urban consumers by easing transport bottlenecks and costs. Strengthening the Kikwit-based PVO credit cooperatives and their outreach to rural producers might encourage expansion of the number of entrepreneurs engaged in value-adding agricultural transformation activities and market transport functions.

Kikwit has an exceptionally well-developed educational sector including academic programs created by a long term Jesuit presence. However, given the heavy in-flow of rural migrants, limited urban employment opportunities, and rural development needs, the educational sector is in dire need of vocational and artisanal training programs geared to a rural migrant clientele and the employment opportunities which could be available to them whether in a urban or rural setting. Such training would also be practical for the urban population as a large share of Kikwit residents are directly involved in agricultural activities. Numerous Kikwit-based resources are already available for the realization of training activities. For instance, in siting its first regional nutrition project headquarters in Kikwit, AID Zaïre has the opportunity to capitalize on this location for training rural migrants (students and job-seekers) and visitors to markets and regional health facilities through urban-based training activities. Since in the immediate future only limited grant funds are expected to be available to the urban sector through USAID and RHUDO sources, it is recommended that these resources be committed to national and decentralized planning activities for urban growth. It is particularly recommended that USAID commit a small level of funding in the short term towards: staff training in the development planning sector; support for field data collection, analysis, and publications; systematizing regular monitoring of selected urban

indicators. With this groundwork, the GOZ and USAID (or other donors) will be in a better position to make an informed identification and selection of urban development priorities for larger scale future funding.

Given the enormity of urban problems which the GOZ is and will be facing, multi-donor collaboration in secondary cities' development is to be encouraged to obtain maximum economic and social benefit through coordinated and supportive investments. The African Development Bank is currently reviewing a loan proposal from Zaïre to fund feasibility studies for the extension of secondary city water systems. In theory, this would be an occasion for a constructive collaboration between USAID and the ADB in the development of Zaïrian secondary cities.

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II. NATIONAL RURAL-URBAN PROFILE

A. Geographic Patterns in the Urban System

Several major environmental factors have historically determined the geographical pattern of urbanization in Zaïre, including: altitude, strategic location on the major navigable rivers, and the pattern of distribution of both the mineral resources in the geological substrate and the agriculturally productive soils. Past decisions by the colonizer, Belgium, to invest in major transport infrastructures (initially railroads and later roads) have generated major urban centers at junctions for the intermodal transfer of freight (export-oriented raw materials, and imports or Kinshasa-manufactured goods for the interior). Both the pre-Independence colonial regime and the post-civil war independent government under Mobutu have developed Kinshasa, the capital, as a central place through which must pass most lines of communication linking one part of the interior of Zaïre with another. With few exceptions, infrastructural links between regional capitals and Kinshasa are better developed than links between secondary cities which bypass Kinshasa.

The "cuvette centrale" (see Fig. 1), a lowlying equatorial swampy area with the highest rainfall in Zaïre, is a virtual demographic vacuum in the country's center, which makes possible, and reinforces, a separation of the northern and southern axes of urbanization, each of which are oriented towards Kinshasa. The cuvette also isolates the eastern mountain urban axis from Kinshasa, and is responsible for the external (Indian Ocean and East Africa) orientation of these Kivu cities.

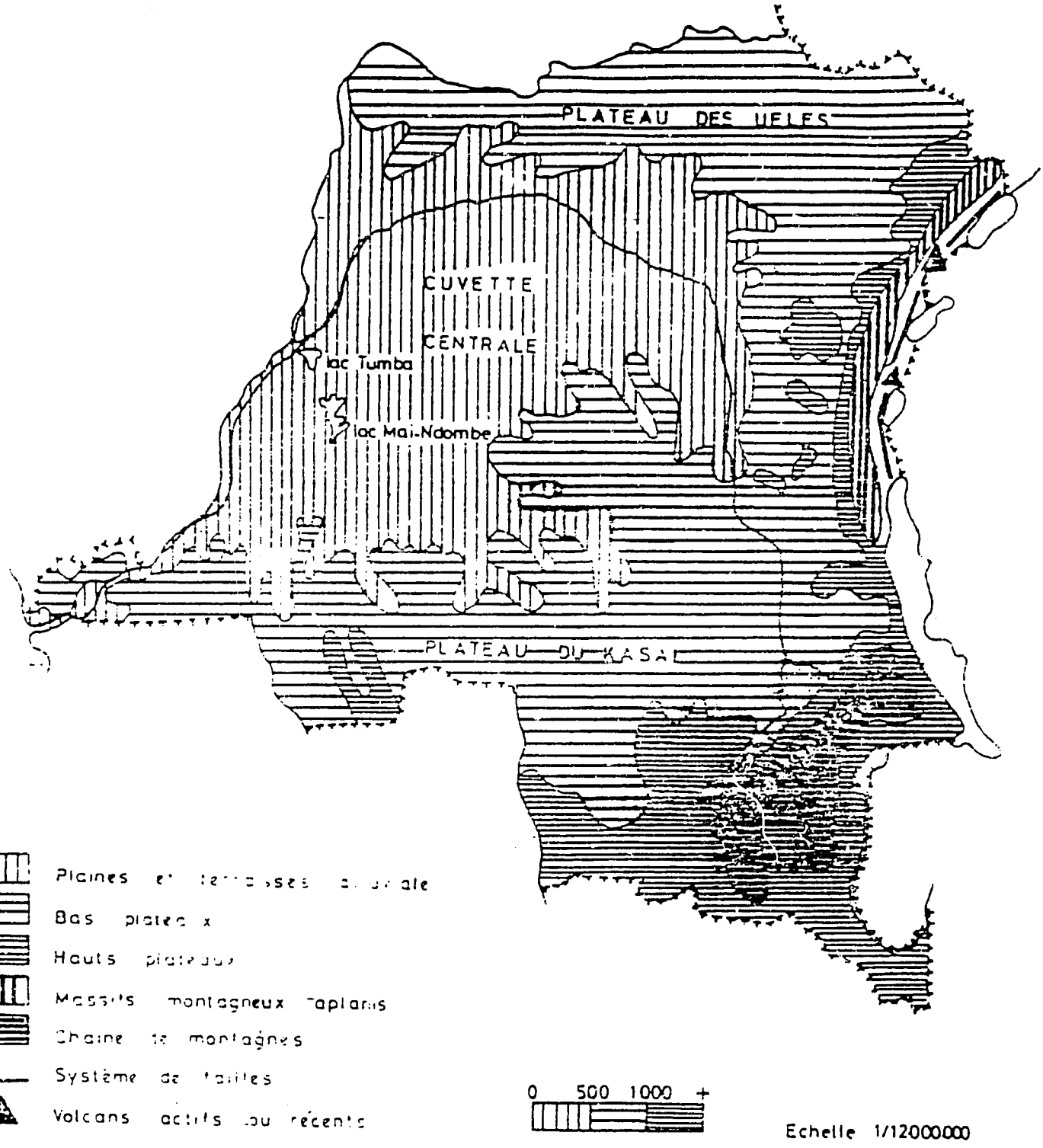
These three fairly stable urban axes emerge from analysis of the 1970 census data, 1980 projections, and earlier maps (see Fig. 2).

(1) The southern axis from Banana to Lubumbashi through the Kwilu River and Kasai region, contains about 7.5 million people spread over a 300,000 km^2 area. The axis follows the major railroad and river routes, but the improvements to National Road No. 1 are catalyzing the growth of some Bandundu centers such as Kikwit.

(2) The northern axis is a more discontinuous structure than the other two axes. It follows the Zaïre River through Mbandaka, Lisala and Bumba to Kisangani, and has a branch towards the northeast which was created by the railroad from Bumba to Mungbese. It has the lowest population, 2.3 million over a 120,000 km^2

FIGURE 1

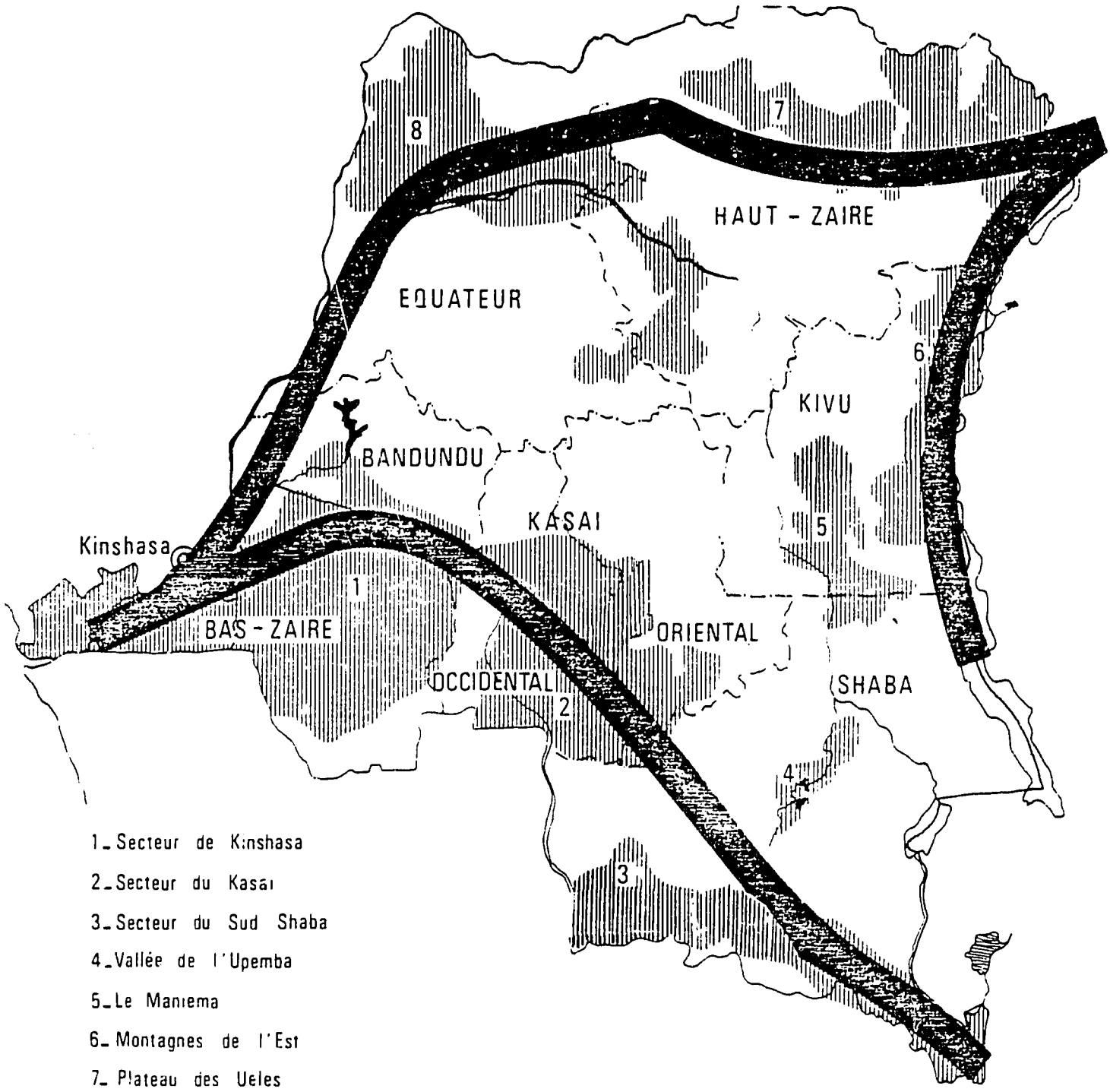
R E L I E F



Source: BEAU, "Aménagement du Territoire: Analyses préliminaires et Orientations", June 1982.

FIGURE 2

ZONES OF DEVELOPMENT AND AXES OF URBANIZATION



Source: Adapted from BEAU, "Aménagement du Territoire: Esquisse d'un Schéma National", January 1982, p. 19.

(3) The Kivu axis is in the eastern lake and mountain region, and contains 3.5 million persons over a 70,000 km^2 area.

Each of these urban axes contains a spatially well-distributed pattern of larger and smaller secondary cities and market towns, well-located to serve the needs of the most demographically concentrated rural areas (see Fig. 3). The specific cities which comprise the urban hierarchy on each axis are listed in Table 1 with their projected 1985 population levels.

By far the most demographically important of these axes is the southern one which extends from the port of Matadi through Kinshasa and the Bandundu region to the central Kasais, and south along the railroad in Shaba to Lubumbashi. The road, rail, and river armature along which this axis of urbanization has grown up is known as "La Voie Nationale" (the National Route), and was created historically to evacuate copper and cobalt from southern Shaba mines, diamonds from Mbuji Mayi, and palm products from Bandundu through Matadi, which, though fluvial, is the major Zaïrian port attainable by ocean vessels. Plans are underway to extend this axis to the coast, through the development of an ocean port at Banana, with implications for the onset of rapid urbanization at adjacent Moanda, and the decline of the secondary town of Boma near Matadi, if specialized functions are not planned for all three port cities. The ZOFI duty-free industrial development zone (Zone Franche d'Inga) has already been legally created in order to attract export-oriented industries which, along with outside donor financing, would provide the initial capital and economic impetus for deepwater ocean port construction at Banana. BEAU is now in the process of initiating a study of Boma, which had originally been expected to specialize as a port for wood exportation, to examine its relative strengths and weaknesses as a part of this Bas Zaïre chain of urban centers.

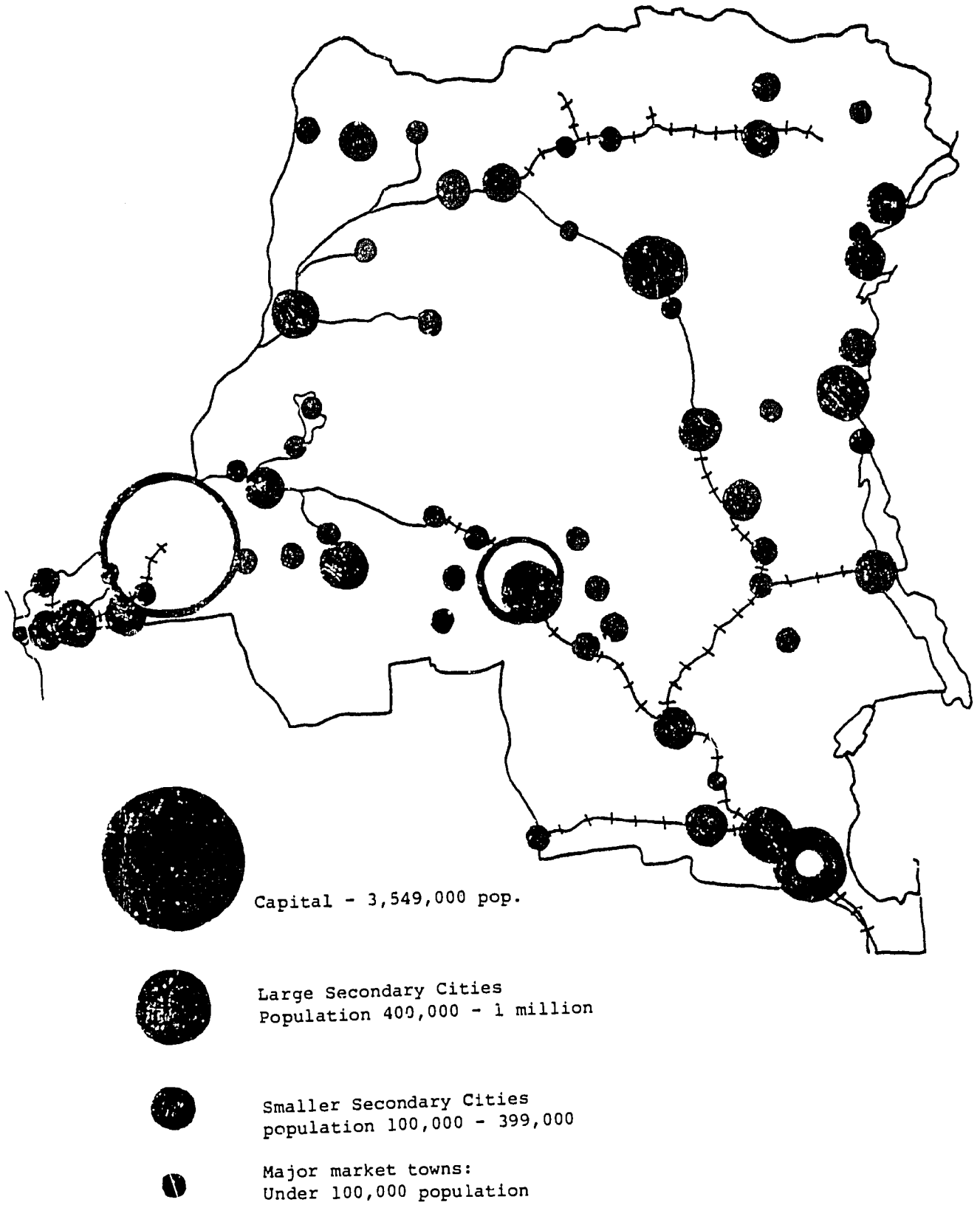
From a review of GOZ and donor allocation of future financial aid, it is clear that transport sector investments have been given a priority, and the particular inter-regional transport projects which will be given final donor commitments are likely to provide the major stimulus for future trends in secondary urban center growth. Conversely, those secondary centers which will not stand to benefit from inter-regional transport investments over the next plan period will certainly suffer economically and will probably grow at slower rates. These are the secondary cities and market towns which will become increasing marginalized within the national transport

system, not generating increased non-farm employment in both rural and urban areas, and providing slower marketing services for rural producers which will inhibit the growth of rural incomes in their service areas.

Before looking in more detail at transport sector investments and their implications, it is important to review the historical patterns and current rates of urban growth, within the overall demographic picture of Zaïre.

FIGURE 3

ZAIRE AXES OF URBANIZATION: DISTRIBUTION OF CITIES
AND RELATIVE SIZES ACCORDING TO 1985 POPULATION PROJECTIONS



Source: Redrawn based upon population projections from Léon de Saint-Moulin, "Perspectives de la Croissance Urbaine au Zaïre", Zaïre Afrique no. 111, January 1977, p. 12, and using map information from BEAU, "Aménagement du Territoire: Analyses Préliminaires et Orientations", June 1982.

TABLE 1

HIERARCHY OF CITY SIZES BY AXIS: 1985 POPULATION PROJECTIONS

	Northern Axis: Zaire R+RR		Southern Axis: National Route		Eastern Axis: Great Lakes	
Large Secondary Cities: 400,000-1 million	Kisangani	557,000	Kananga Lubumbashi Mbuji-Mayi	938,000 765,000 625,000	Bukavu	418,000
Smaller Secondary Cities: 100,000-399,000	Mbandaka Isiro Bumba Gemena Lisala	294,000 151,000 131,000 122,000 105,000	Likasi Kikwit Kolwezi Matadi Kamina Mbanza-Ngungu Boma Bandundu	353,000 346,000 224,000 216,000 173,000 162,000 137,000 102,000	Goma Kasongo Kalemie Kindu	208,000 142,000 130,000 110,000
Large Market Towns: under 100,000	Watsa	53,000	Kipushi Kenge	61,000 41,000	Butembo Bunia	81,000 79,000
Smaller Market Towns:	Kutu Inongo Libenge Businga Aketi Buta Niangara Ubundi Boende Basankusu		Tshele Moanda Inkisi Luozi Masi-Manimba Bulungu Ilebo Lubundi Dilolo Mweka Mushie Luebo Tshikapa Lusambo Kabinda Gandajika Muena Ditu		Beni Uvira Kalema Kongolo Kabalo Manono	

Note: 1985 population projections from Léon de Saint Moulin, "Perspectives de la Croissance Urbaine au Zaïre", Zaïre Afrique, No. 111, January 1977, p. 12.
For smaller market towns, no population projections were available, and no relative size is implied by order of listings.

B. Historical Determinants of Urban Geography

Since most of the country is essentially one drainage basin emptying west to the sea, the natural geometry of Zaïre provides an integrating structure only through use of the river system, extended by the rail beyond the limits of navigation. The precolonial river transport system gave rise to trading centers which became important administrative and commercial cities. These river systems were complemented by the railroad system which encouraged the growth of trade centers through which it passed. Comparison of Saint Moulin's map of the Zaïrian urban network in 1914 with a 1983 map of principal cities (see Fig. 4 and 5) reveals the long term continuity in the importance of these cities, almost all of which are located on navigable waterways. The Shaba cities were located on the copper mines exploited in pre-colonial times, and were linked by rail through to southern Africa ports.

The geometry determining the present urban geography was already in place, therefore, less than 20 years after colonial occupation began. It was largely built upon pre-existing trade routes (mainly by river) and mineral exploitation, and was constrained by the relatively uninhabitable "cuvette centrale". The railroad, a cost-effective mode of transport for the export of Shaba copper, had already established an external transport link, pre-determining the lack of integration of Shaba into the rest of the nation-state which the Shaba cities continue to manifest today.

Once the transport system began to focus more on high land ("terre ferme") systems or roadworks, national integration became more difficult to achieve. The road networks were and still are forced by the drainage system to be much more discontinuous and to skirt the country's central swampy forest. They are expensive to construct, and difficult to coordinate both in their development and maintenance.

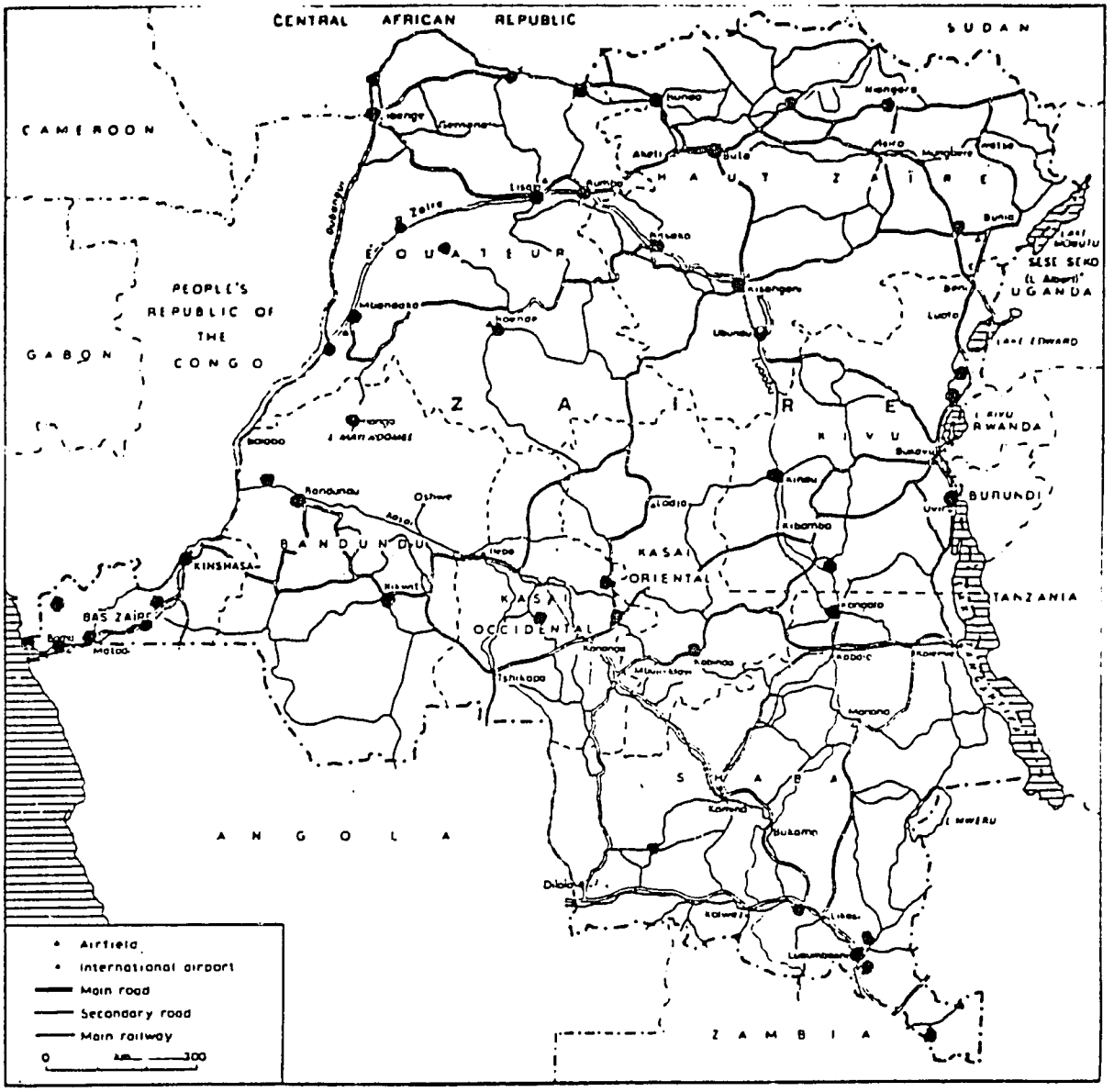
Aside from the transport (river and rail) armature, the other early determinant of the main present-day urban axes were the pre-colonial concentrations of dense rural populations already served by river town trading centers, mainly along two of the axes already described:

(1) the southern axis of the Kasai River and its affluents, and
(2) the northern axis of the Zaïre River and its affluents

Both of these axes converged at Kinshasa, through which traffic in both directions was funneled by the Matadi-Kinshasa

FIGURE 4

ZAIRE URBAN NETWORK: 1914

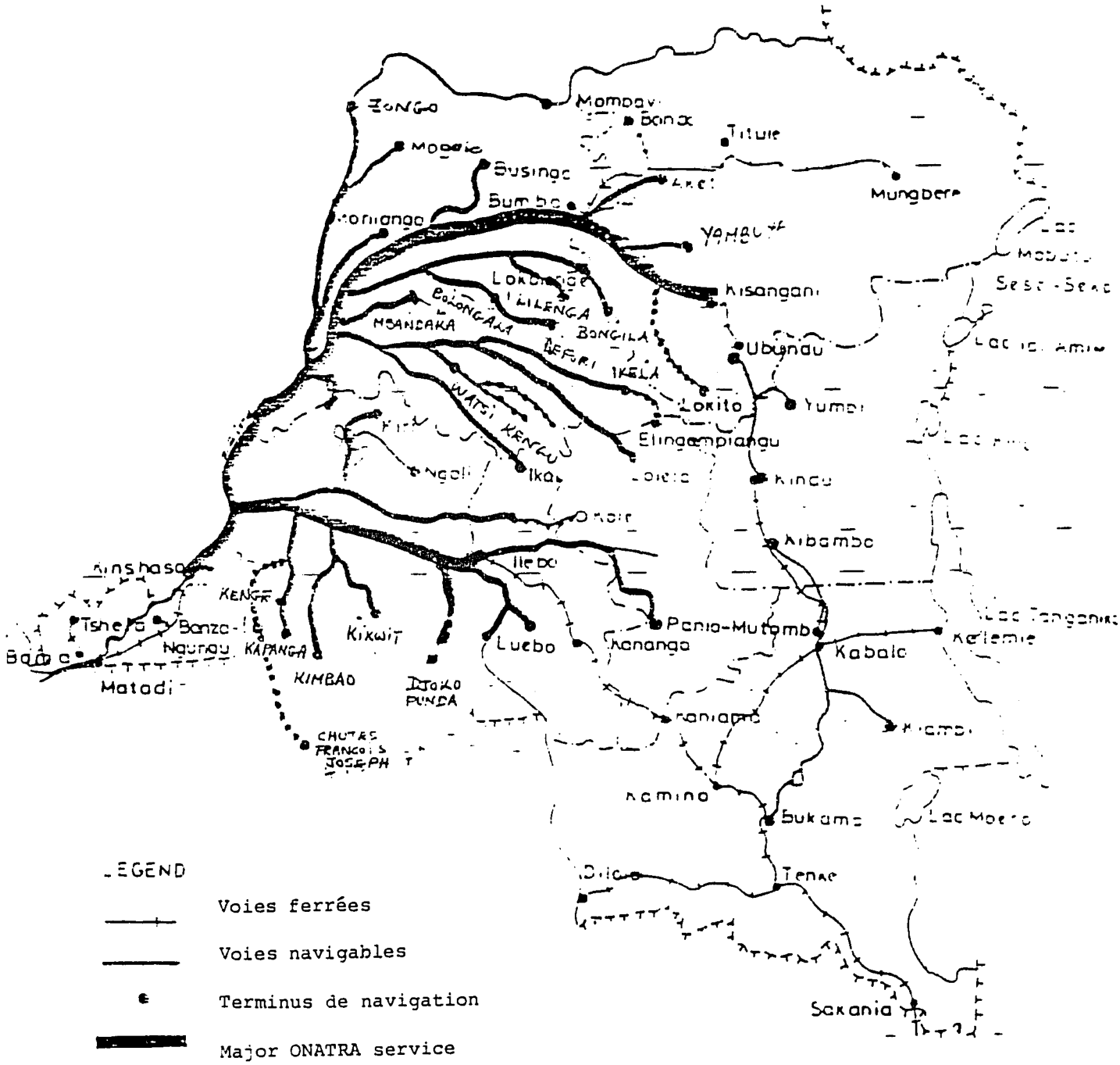


● 1983 urban center which was already an existing urban area in 1914

Source: Redrawn from data presented in Léon de Saint-Moulin, "Histoire des Villes du Zaïre: Notions et Perspectives Fondamentales", Etudes d'Histoire Africaine, VI (1974), p. 139. 1983 names of cities are used.

FIGURE 5

1983 RIVER-RAIL TRANSPORTATION NETWORK
AND ITS RELATIONSHIP TO ZAIRIAN CITIES



Scale: 1/12.000.000

Source: Adapted from BEAU, "Aménagement du Territoire: Analyses Préliminaires et Orientations" using information from Bureau d'Etudes V.T., "ONATRA Voies Fluviales", 1983.

C. Urban Population Growth Trends

The single most important conclusion to be drawn from the data available is that by the year 2000 Zaïre will have shifted from a predominantly rural to a predominantly urban national population. In spite of this shift which is taking place, there is another trend which should be noted as well - the gradual slowdown in the rate of urbanization which has been taking place over the last ten years. While urban areas are still growing nation-wide at roughly twice the national average population growth rate, the fact that there has been a "slowing" of the rate of urbanization is of interest. To the extent that this merely reflects the increasingly difficult conditions which have prevailed in urban areas due to the economic crisis, this slowdown may well change if national and donor policies are successful in arresting the prolonged economic slide. Rural-urban migration accounts for approximately half the existing population of the cities, and at least half of the rate of annual increase in urban population growth. The share of in-migration in annual urban population growth varies by city, and is over 50% higher than the rate of growth through national increase in some cities. Political disruption in Angola and Uganda had contributed at least 300,000 international refugees to the flow of migrants into Zaïrian cities adjoining these frontiers by the end of 1982, according to the UNHCR.

The population of Zaïre seems to have been growing at over 3.5%/year, from its 1970 census report of 20 million to 29 million by administrative census in 1980. A full national census with UNFPA technical assistance is now being designed, and its implementation during the next two years will provide a more accurate picture of Zaïrian population growth and rural-urban shift than the incomplete and often underestimated administrative censuses now available. If, however, national population is actually growing at the high rate of 3.5%/year, by the year 2000 there will be 56 million Zaïrians. A more modest growth rate of 3% will still result in 48.5 million Zaïrians by the year 2000 (see Table 2).

We can expect that Zaïre will be at least 39% urbanized by 1985, compared with the 29% of its population in centers of over 5,000 inhabitants in 1975, and as much as 55% urban by the year 2000. The urban-dwelling portion of the national population will have almost doubled during the 1975-1985 decade alone, even in the face of continuing decline in macro-economic conditions and employment.

As indicated earlier, while an absolute shift in the rural-urban balance is taking place, a closer examination of

TABLE 2

PROJECTIONS FOR THE TOTAL POPULATION OF ZAIRE, 1970-2000

(in millions)

YEARS	ANNUAL GROWTH RATES 2.5%	3.0%	3.5%
1970	20.0	20.0	20.0
1975	22.6	23.2	23.8
1980	25.6	26.9	28.2
1985	29.0	31.2	33.5
1990	32.8	36.1	39.8
1995	37.0	41.9	47.2
2000	42.0	48.5	56.1

Source:

Saint Moulin, Léon de, "Perspectives de la Croissance Urbaine au Zaïre", Zaïre Afrique, No. 111, January 1977, p. 2.

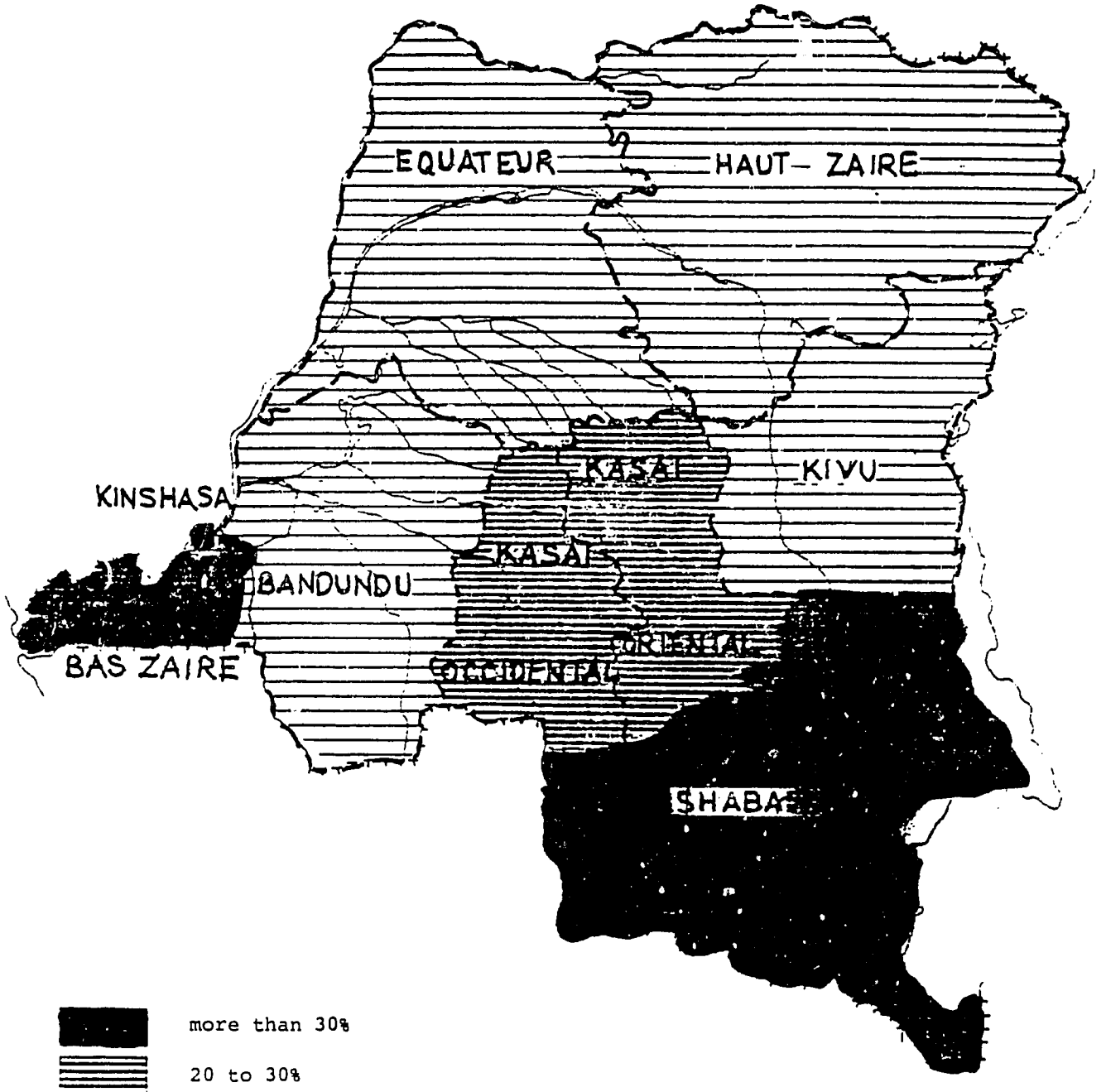
statistics on urban growth rates from 1948-1980 and the best available 1980-85 projections, seems to indicate that the general trend has been towards declining though still positive rates of urban growth, for all regions including Kinshasa (see Table 3). Kinshasa's growth rate seems to have been highest (11.4%) in the 1948-58 decade, declining steadily to its currently estimated annual growth rate of 6.6%. As a whole, the urban population has been growing about 6.3%/year from 1980-85, almost twice as fast as the overall national rate of population increase. Even though this is a lower annual rate of increase than for the first half of the past decade (1970-75), the absolute numbers involved are becoming increasingly large. It is clear that the rural-urban migration trend is strong and even if overall rates have been curbed somewhat by macro-economic conditions, some cities continue to grow particularly rapidly.

Regional differences in levels of urbanization (see Fig. 6) can be summarized to state that Kinshasa and Shaba are the most urbanized regions, with Bas Zaïre and the Kasai(s) next in descending order. Other regions are becoming increasingly urbanized, but a much lower percentage of their population is urban-dwelling. However, in general an order-of-magnitude stability is observable comparing cartological records (see Fig. 7) and the relative regional rates of urban growth (see Table 3) across the 1948-85 time period. There are a few notable exceptions which have clear historical explanations, such as the high rate of 1958-70 urban growth in Bandundu, which is attributable to the civil disturbances and rural insecurity surrounding, in part, the Mulelist Rebellion. By and large, however, more stable patterns predominate.

Cities in the highly urbanized Shaba region, with its low density of rural population, are growing slowly, as are the few urban areas in demographically sparse Haut Zaïre. Though not yet highly urbanized, the Kivu has a rapid urban growth rate based on its important rural population density and ensuing land pressure. Kinshasa's relative growth rate, though declining in absolute annual percentages, remains high relative to other regional urban growth rates. Equateur's urban growth rate has remained elevated during the last 15 years, due to the low level of rural services which has increased the attractiveness of its cities. The Kasais, second only to Kinshasa, Shaba, and Bas Zaïre (in that order) in being the most highly urbanized regions of Zaïre, have maintained an intermediate position in their urban growth rate over the last 25 years, and the lack of attention to their urban structure and planning needs in comparison to efforts expended in Shaba and Kinshasa, is anomalous.

FIGURE 6

LEVELS OF URBANIZATION BY REGION

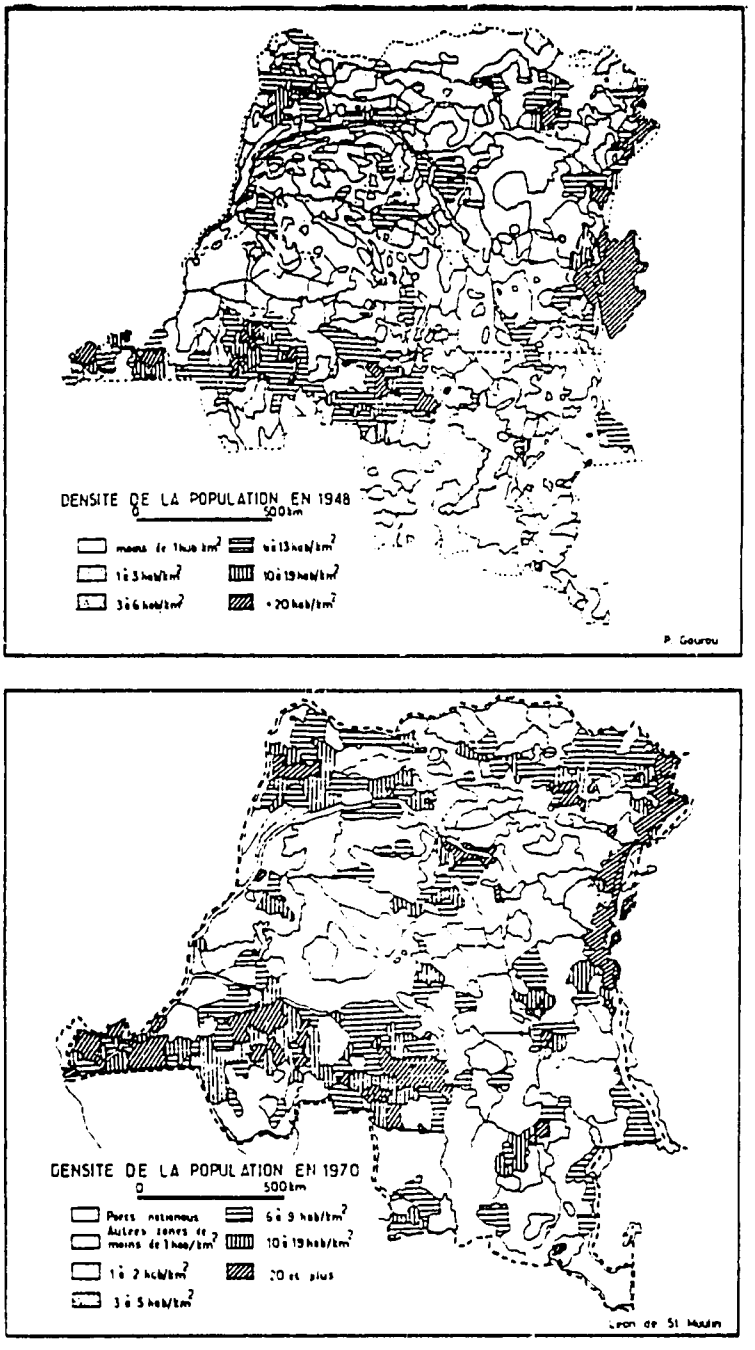


Scale: 1/12.000.000

Source: BEAU, "Aménagement du Territoire: Analyses Préliminaires et Orientations", June 1982.

FIGURE 7

STABILITY OF DENSE POPULATION ZONES:
COMPARISON OF 1948 AND 1970 MAPS
OF RURAL POPULATION DISTRIBUTION



Source: Adapted from Léon de Saint-Moulin et P. Gourou as published in BEAU, "Aménagement du Territoire: Esquisse d'un Schéma National", p. 9.

TABLE 3

AVERAGE ANNUAL GROWTH IN URBAN POPULATION BY REGION, 1948-85

Regions	Av. Annual Growth Rate 1948-58	Av. Annual Growth Rate 1958-70 %	1975 Urban Population	Annual Growth 1975-80 %	1980 Urban Population	Annual Growth 1980-85	1985 Urban Population
Kinshasa	11.4	11.2	1,679,091	7.50	2,410,552	6.6	3,302,665
Bas Zaïre	8.9	7.1	493,504	6.50	676,143	5.9	900,572
Bandundu	6.0	13.0	470,956	7.00	660,540	6.3	896,531
Equateur	10.3	9.1	416,101	7.50	597,367	7.2	845,698
Haut Zaïre	6.7	6.6	611,567	6.35	832,016	5.8	1,102,961
Kivu	9.8	10.4	500,439	7.50	718,445	7.6	1,036,227
Shaba	7.0	5.7	1,363,069	6.00	1,824,094	5.5	2,384,018
Kasaï Oriental	13.0	9.5	462,703	6.50	633,943	6.5	868,557
Kasaï Occ.	13.0	9.5	479,709	6.50	657,243	6.5	900,480
Whole Zaïre	9.0	8.8	6,447,139	6.80	9,010,343	6.3	12,237,709

Sources: 1975-85 growth rates from: J. Boute and L. de Saint Moulin, "Perspectives Démographiques Régionales: 1975-85", Département du Plan, République du Zaïre, p. 18

1948-70 statistics from: Léon de Saint Moulin, "Histoire des Villes du Zaïre", Etudes Histoire Africaine, VI (1974), p. 152

Looking also at the rates of growth over different size classifications of Zaïrian cities, in Table 4, one is struck by the overall trend towards convergence of the growth rates of the capital, versus large secondary cities (over 100,000) and smaller cities (25,000 - 100,000). Though growing fastest, Kinshasa's growth rate is less extremely above the rate of increase of smaller cities, and all rates seem to be declining.

As mapped in Fig. 8, the fastest growing secondary cities (below the status of Kisangani and Lubumbashi) are expected to be in the future: (1) Boma (unless negatively impacted by the competing ZOFI focus on the Banana-Manda port complex, and the recently completed bridge which has opened new development areas for Matadi's expansion on the north bank of the Zaïre River); (2) Kenge, which is benefiting from the commercial traffic increase after the paving of the Kinshasa road; (3) Bandundu, through its elevation to regional capital status, and the ensuing job migration (which may, however, be tapering off); (4) Kamina in north Shaba (which might receive even more stimulation if donor commitments on rail rehabilitation and upgrading are implemented); (5) the Kivu cities of Bukavu, Kalemie port, Kasongo and Butembo (current road improvements north from Bukavu will strengthen this trend).

Though many smaller centers seem to be growing faster than larger urban areas, BEAU has hypothesized that some smaller centers will grow slower than the rate of natural increase, since they will be stopovers en route to larger urban centers, and will therefore experience significant out-migration (such as migration of Kipushi urban residents to Kolwezi, Likasi, and Lubumbashi in Shaba region). In spite of BEAU's expectation that the capital and the largest urban centers will grow at increasingly slower rates, the absolute numbers involved are so large that even at a growth rate of only 3.7% annually, Kinshasa will add a million residents every five years.

Considerable change in the urban hierarchy is likely to emerge in the coming years among the levels of importance of secondary cities, generated by their divergent rates of growth. Even with BEAU's assumption that Kinshasa and the Kasai cities will grow at declining rates (1% slower every five years), and that other urban centers will grow at 40% slower rates over the 1970-2000 period, by the year 2000, Zaïre would have almost seven million persons in the capital alone, and five other million person (or million plus) cities including Kisangani, Bukavu, Lubumbashi, Kananga, and Mbuji-Mayi. Twenty-two other urban centers would have passed

TABLE 4

ZAIRIAN CITIES' GROWTH RATES ACCORDING TO THEIR SIZE, 1938-80

Urban Centers	Annual Growth Rates (%) '38-'48	'48-'58	'58-'70	1970 Population	Annual Growth Rate (%) '70-'80
Kinshasa	12.2	11.4	11.2	1,323,039	7.5
Centers of 100,000 to 500,000 inhabit.	7.4	8.2	8.4	1,672,992	6.2
Centers of 25,000 to 99,999 inhabit.	5.1	9.7	7.9	906,775	6.0
Centers of 10,000 to 24,999 inhabit.	3.4	5.7	6.7	514,260	---
Centers of less than 10,000 inhabitants	2.9	2.3	2.8	71,112	---
TOTAL OF ALL CENTERS	7.9	9.0	8.8	4,448,178	---

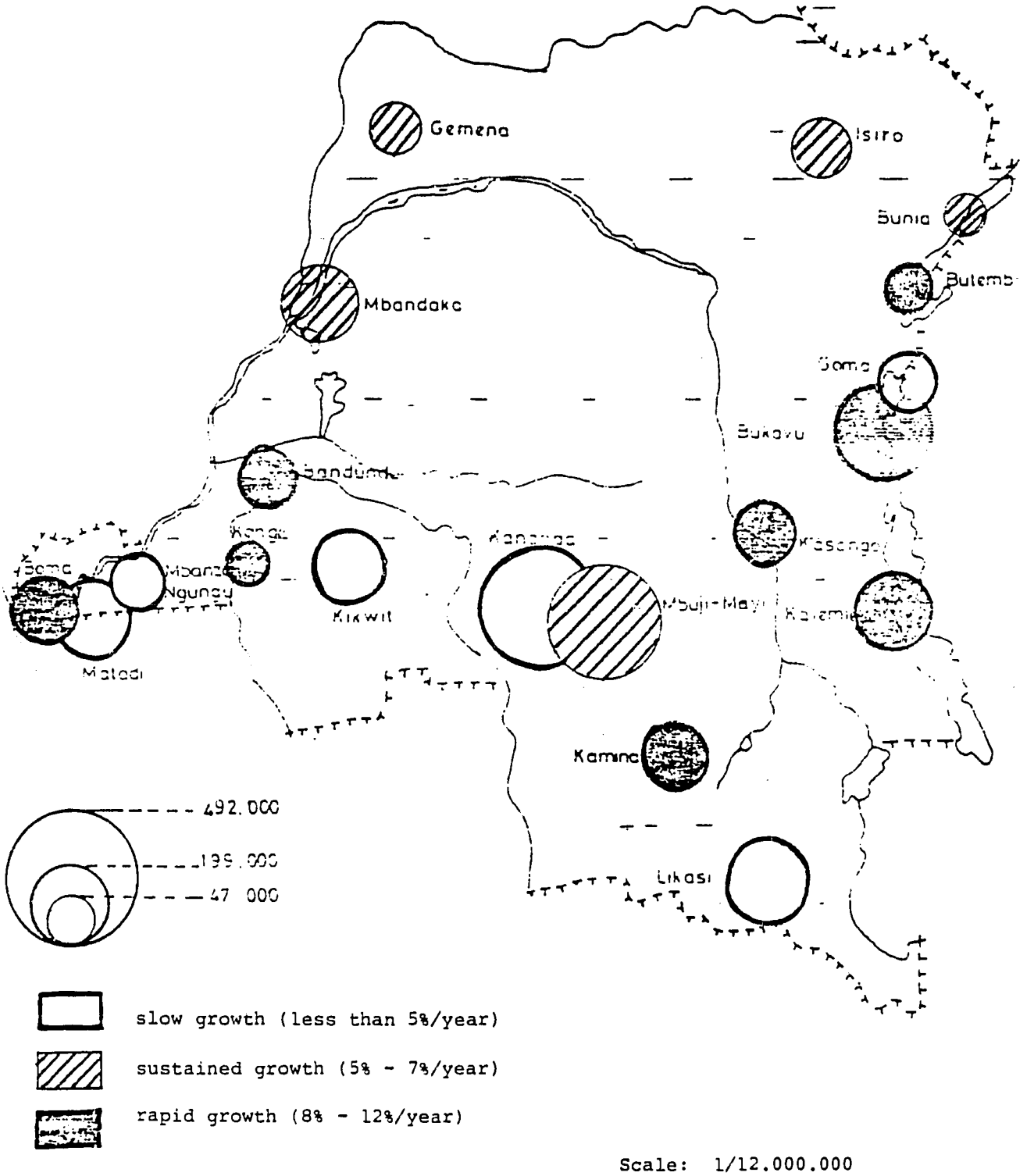
Sources: 1938-1970 figures are from:

Léon De Saint Moulin, "Histoire des Villes du Zaïre", Etudes Histoire Africaine, VI (1974), p. 148.

1970-80 calculations performed by the author upon statistics from the Département de l'Administration du Territoire reported in BEAU, "Aménagement du Territoire: Analyses Préliminaires et Orientations", June 1982. Growth rates for cities under 25,000 during this period could not be determined from available data.

FIGURE 8

RATES OF SECONDARY CITY GROWTH IN ZAIRE



Source: BEAU, "Aménagement du Territoire: Analyses Préliminaires et Orientations", June 1982.

the 100,000 population threshold which is thought by many urbanists to provide the necessary precondition for economic diversification and an increasingly urban attitudinal orientation.

The urban population figures projected can only be considered as indicators of order of magnitude, since only a 30% confidence level is statistically verifiable. As an example of the wide data discrepancies encountered in preparing the Rural-Urban Profile, because of the lack of good quality demographic data (especially on secondary cities), the population of Kananga was reported as 430,195 in the 1970 census, but in 1974 was only 245,200 according to the Institut National de la Statistique (INS) Socio-Demographic Survey. The actual population of this city may have been inflated by almost 100% by census takers according to INS. In the absence of more accurate survey estimates from comparative time periods for individual cities, the consultant has been forced to rely on the official data sets, and has not adjusted figures within them based on the few individual surveys available.

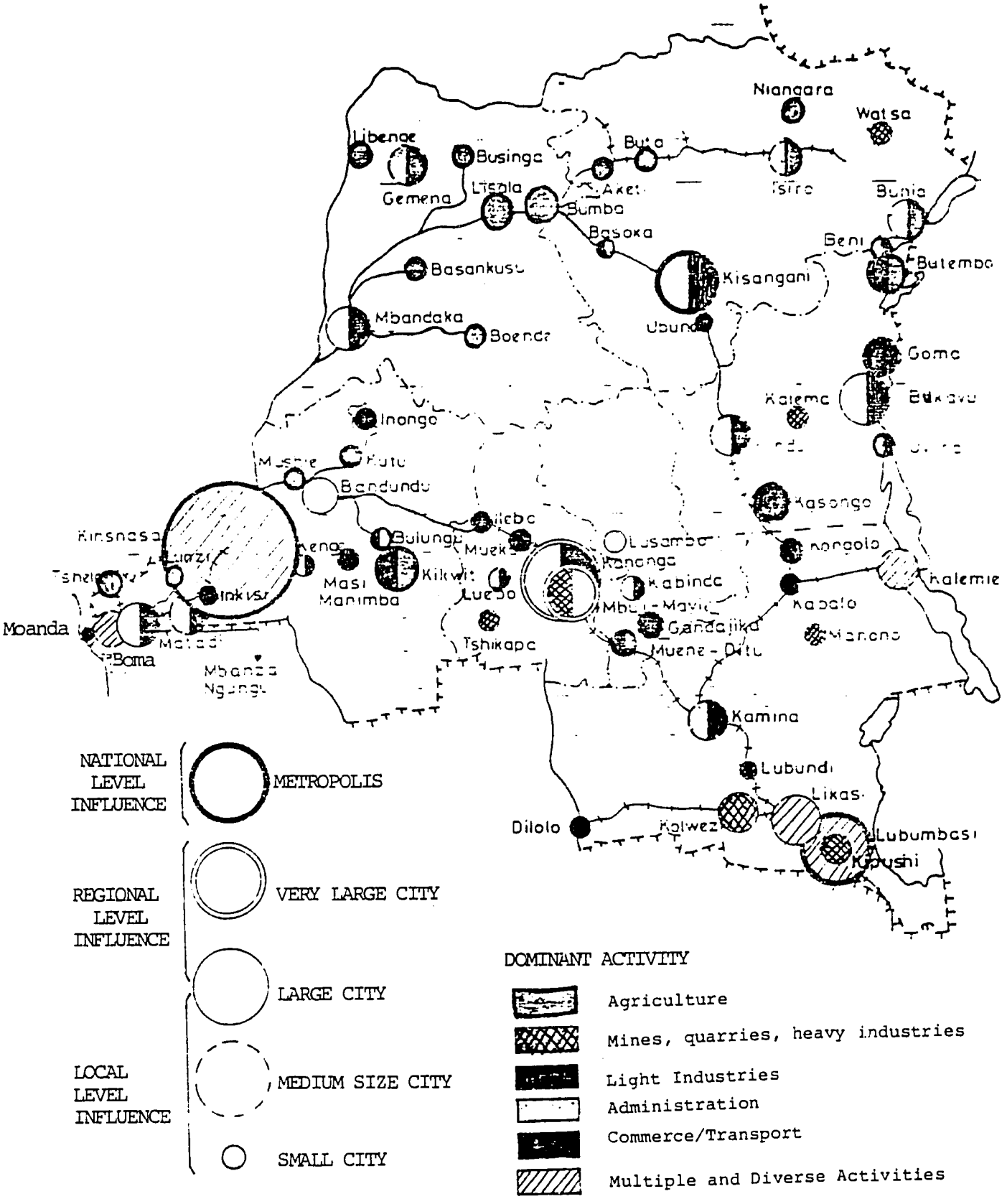
However, it seems fairly safe to assume in absolute terms, even with declining rates of urban growth in Zaïrian cities of all sizes, almost ten million new urban dwellers will need to be absorbed during the next 15 years. This means providing urban shelter and infrastructure, social services and jobs for over three times the current population of the capital during this relatively short period.

D. Urban Functions

As shown on the Urban Functions Map, (see Fig. 9), each of the three major urban axes is an articulated system of larger and smaller cities. The three metropoles defined by BEAU as having national influence and functions include the capital, Kinshasa, at the convergence of the northern and southern urban axes; Kisangani at the terminus of the northern axis; and Lubumbashi at the end of the southern axis. Only the eastern urban axis with its two parallel north-south ribbons (the Lualaba valley dominated by Kindu and Kasongo and the Great Lakes depression of which Bukavu is the largest city) lacks a national level metropole. In a 1980 BEAU study, "Fiche Signalétique des Centres Urbains: le Réseau Urbain du Zaïre", the following hierarchy of the most important urban places was proposed, based upon a combination of the administrative, commercial, industrial and transport functions performed by these cities (but weighted towards their administrative roles):

FIGURE 9

URBAN FUNCTIONS



Source: BEAU, "Aménagement du Territoire: Analyses Préliminaires et Orientations", June 1982.

Scale 1/12 000 000

Hierarchy of Important Urban Places by Function, BEAU

I. National-influence metropoles:

Kinshasa
Lubumbashi
Kisangani

II. Regional Centers:

A. Those with important transport roles as well as being regional administrative capitals:

Matadi
Kananga
Mbuji-Mayi
Bukavu

B. Regional administrative capitals that rely upon smaller towns for regional management (because of communications difficulties):

Mbandaka
Bandundu

C. A city with regional influence which is not a regional capital, occupying a key position in the national communication system:

Kikwit

III. Sub-regional centers, which provide administrative, transport, marketing and supply services to rural areas. They are probably deserving of the most attention, since they have received the least planning and development assistance in the past, but probably have the most capacity to serve rural needs:

a. Bas Zaïre - Boma, Mbanza-Ngungu
b. Bandundu - Kenge
c. Equateur - Gemena, Lisala, Boende
d. Haut Zaïre - Isiro, Bunia, Buta
e. Kivu - Kasongo, Kindu, Goma, Butembo
f. Shaba - Kamina, Kalemie, Likasi, Kolwezi, Dilolo
g. Kasai Oriental - Muena Ditu
h. Kasai Occidental - Tshikapa, Ilebo

These choices are based more on function than population size, as shown by comparison with the author's population-generated secondary cities' table below. The BEAU study of secondary cities excludes Kinshasa and the two other national-influence metropoles (Lubumbashi and Kisangani). Kananga is included in the BEAU study, though its population is larger than that of Kisangani, because it is not thought of as having a nation-wide influence. To allow comparison between population rank order and BEAU's more functional ordering of the importance of urban centers above, these cities have also been eliminated from the table below. The data presented in the 1970 national census and the 1980 administrative censuses allow the identification of eight secondary cities above 100,000 in '70 shown below in rank order, with four more cities above this threshold in '80, and some reversals in rank position:

Population-Ranking of Secondary Cities Over 100,000

1970	1980
1. Kananga	1. Kananga
2. Mbuji-Mayi	2. Mbuji-Mayi
3. Likasi	3. Bukavu
4. Bukavu	4. Likasi
5. Kikwit	5. Mbandaka
6. Matadi	6. Kalemie
7. Mbandaka	7. Kikwit
8. Kolwezi	8. Matadi
	9. Boma
	10. Kamina
	11. Bandundu
	12. Kolwezi

Source: Ranking by the author based on 1970 census and 1980 administrative census figures from Département Administration du Territoire.

In comparing the size of urban centers with their functions one sees, for example, that though Likasi is one of the largest secondary cities, it is not thought to be a regional center. Conversely, Bandundu and Kikwit are much smaller in population than several of the sub-regional centers, but are still identified as having a regional influence, in spite of the fact that in the case of Kikwit, national authorities

attempted to thwart this influence by moving regional administrative functions to Bandundu in 1971.

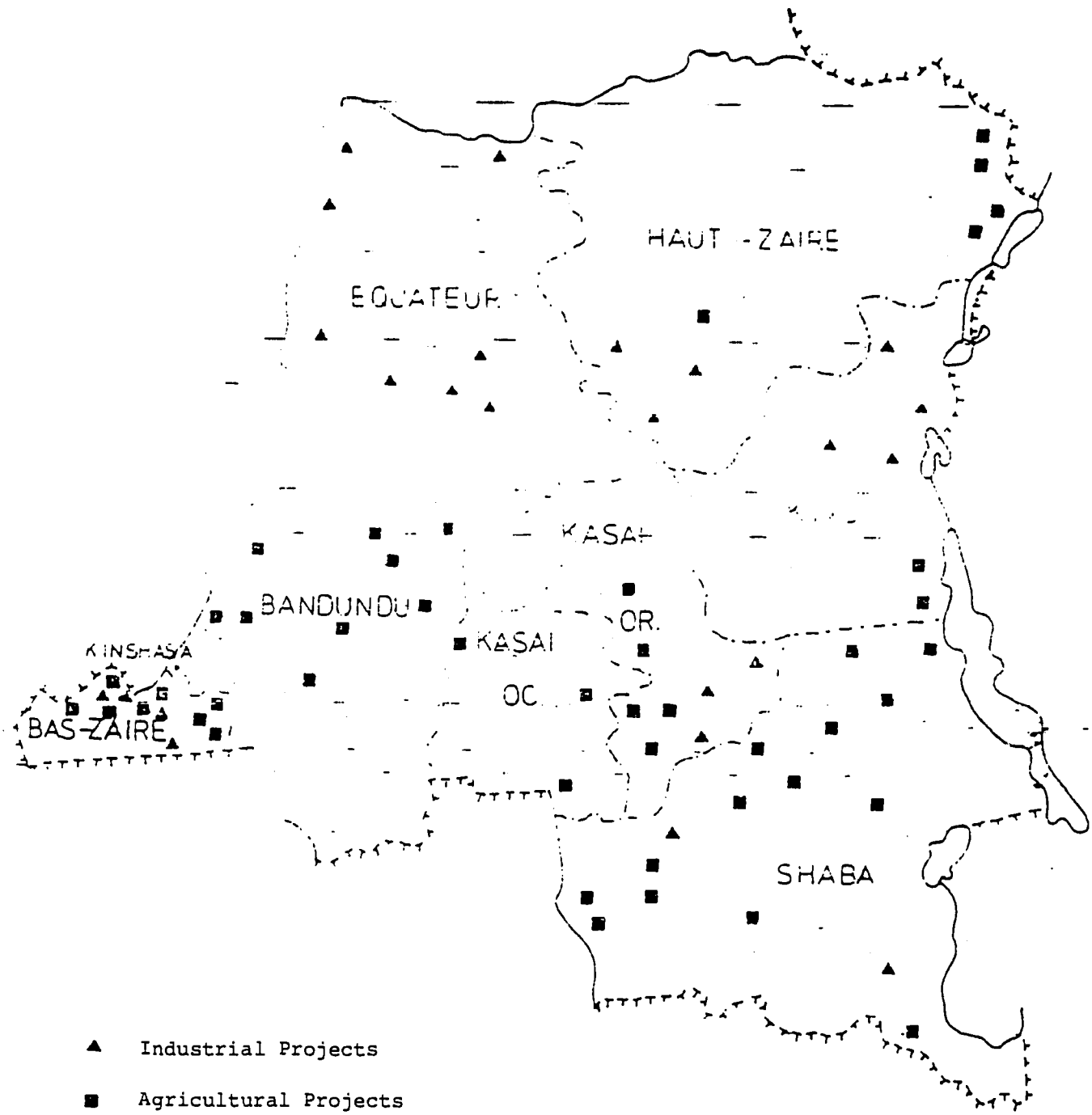
In comparing the above lists of the most important cities in the Zaïrian urban network by function and of cities over 100,000 population, Bandundu was the only regional center back in 1970 which had not yet achieved this demographic critical mass, usually thought by urbanists to be a minimum size which will allow a city to develop a diversified mix of economic activities. The Shaba sub-regional centers of Likasi and Kolwezi had already grown to this size, and had developed urban economic structures even though their administrative roles were less significant. In the case of Kolwezi, this was largely spurred by mining activities, while Likasi had achieved a more diversified economic mix. Likasi, in fact, is one of the only four cities in Zaïre to have developed multiple and diverse urban functions, aside from the capital. The other three secondary cities with diverse functions and mixed employment/production bases are Kalemie, Boma, and Lubumbashi. This is probably, in large part, the cause of Boma and Kalemie's particularly high growth rates (they are among the eight fastest growing secondary cities in Zaïre at this time).

Industrial functions in Zaïrian cities are concentrated in relatively few urban centers, with most of the country's industry being located in Kinshasa and Shaba (especially in the cities of Likasi and Lubumbashi). Aside from the four cities with diversified economies, only Kamina, Bukavu, Goma, and Kisangani have developed significant amounts of light industry. This is typical of many Third World urban systems, and is less concentrated in a few central places than in most of sub-Saharan Africa (see Fig. 10). Heavy industrial activities, mainly mines and quarries, are located in four other Shaba urban centers (Kolwezi, Kipushi, Lubundi, and Manono). The only other cities with significant amounts of mining are Mbuji-Mayi and Tshikapa in the Kasai Oriental diamond areas; Kalema in the Kivu, and Watsa in Haut Zaïre which both have gold mines (see Fig. 11).

Thus it appears that certain of Zaïre's secondary cities have administrative importance far beyond their economic development status, while some of the most economically thriving cities have not been accorded important and geographically extensive administrative functions. Rates of urban growth and therefore predictions for future changes in the comparative importance and roles of Zaïre's secondary cities are being generated by both of these influences - (1) the past track record of some cities in generating

FIGURE 10

AGRICULTURAL AND INDUSTRIAL PROJECTS

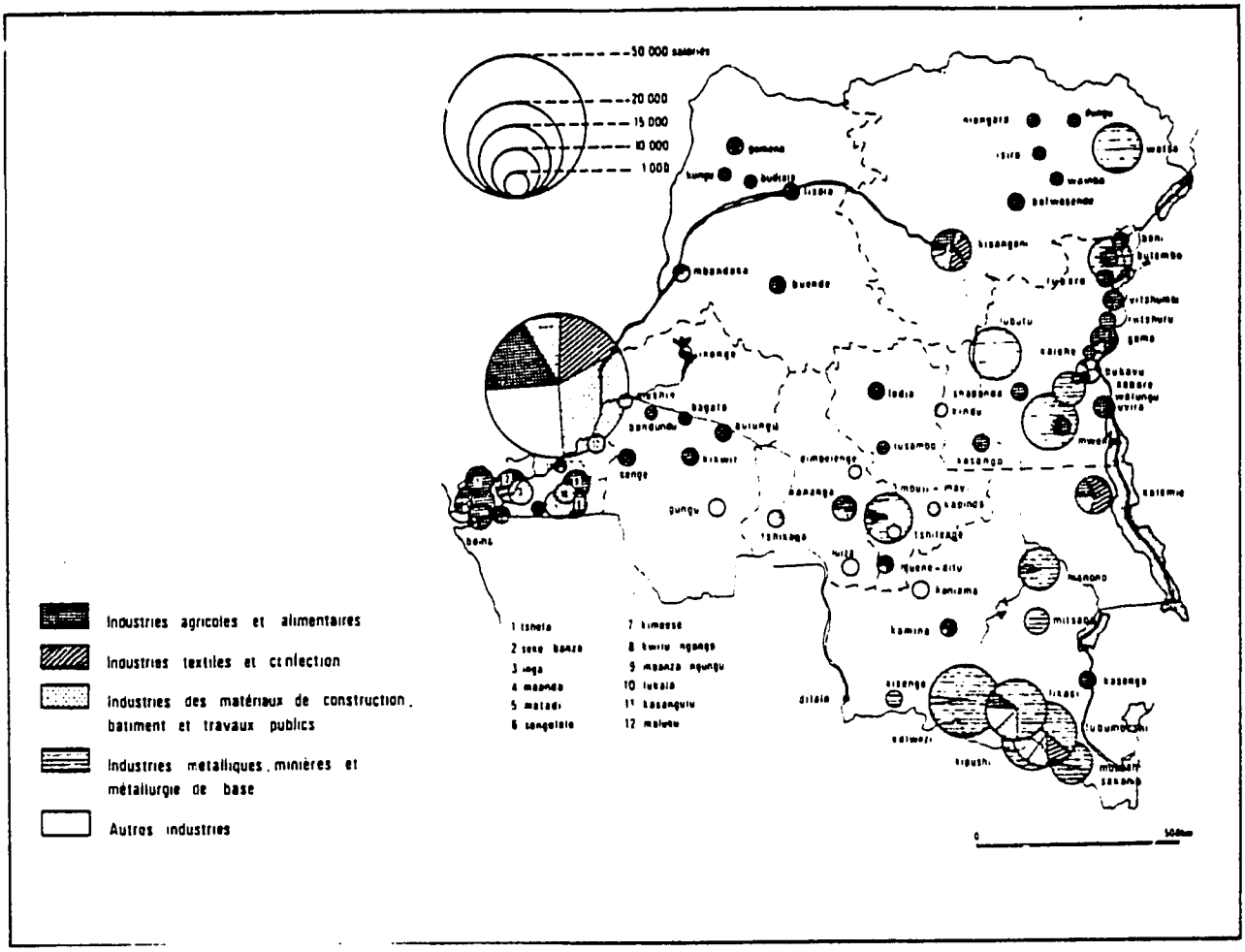


Scale: 1/12.000.000

Source: BEAU, "Aménagement du Territoire: Analyses Préliminaires et Orientations", June 1982.

FIGURE 11

INDUSTRIAL AND MINING ACTIVITIES



Source: BEAU, "Aménagement du Territoire: Esquisse d'un Schéma National", January 1982, p. 11.

self-sustaining economic diversification and thereby attracting larger numbers of migrants (Boma and Kalemie), attributable largely to their key location at transport junctions, and (2) the growth impetus provided to some secondary cities by their administrative designation as regional capitals rapidly conferring both enhanced prestige and large numbers of government jobs, both of which attract migrants but not necessarily a broader range of economic activities (e.g. Bandundu).

In general, most of the cities on the northern urban axis, along the Zaïre River, have predominantly agricultural economies, with some agricultural transformation industries (see Fig. 12). Aside from the regional capitals, several sub-regional centers on each axis usually provide important administrative services:

(1) Southern axis - Mbanza-Ngungu, Kenge, Luebo, Lusambo, Kabinda, Kamina;

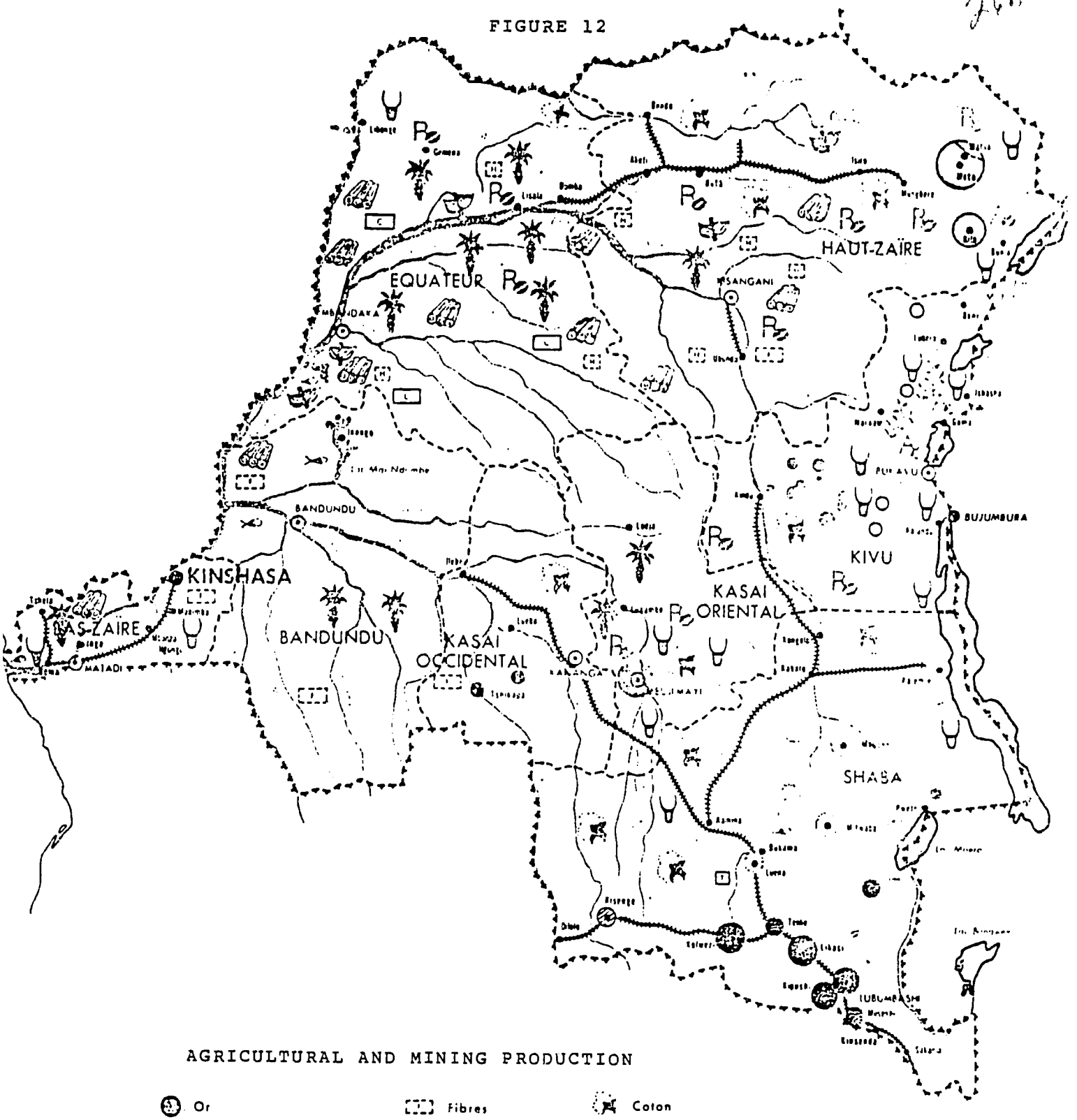
(2) Northern axis - Gemena, Isiro;

(3) Eastern axis - Bunia, Kindu.

Aside from agricultural and administrative functions, the most widely spread urban-based services for rural areas are provided in the transport sector. Since urban inter-modal freight transfers will be discussed in some detail in the next section, this role will only be summarized here. Most of the cities on the southern axis of urbanization (the National Route) serve important transport functions, especially those mapped in Bas Zaïre, Bandundu, and the Kasai regions. Dilolo, an urban area on the border, was also generated by frontier administration and Shaba transport through Angola, though activities here have stagnated since the Angolan civil war. Several cities on the northern axis have major transport functions (such as Inongo on Lake MaiNdombe, and Mbandaka on the Zaïre River), because of the isolation of their rural hinterlands. Almost all of the eastern axis cities have major transport roles, including all of the cities south from Kisangani along the Lualaba valley, which are largely rail-oriented, as well as Beni, Butembo, Uvira (Kalundu), Kalemie, and Goma in the Great Lakes area.

Though there was insufficient time to look in detail at the educational and medical services provided by different size cities throughout the urban system, the Health Service Map reproduced from the 1978 Jeune Afrique Atlas shows the overall

FIGURE 12



AGRICULTURAL AND MINING PRODUCTION

- Or
- Diamant
- Cuivre, cobalt, zinc
- Cassitérite, wolfram, colomba-tantalite
- Charbon
- Manganèse
- Chemins de fer
- Fibres
- Copal
- Hévéas
- Tabac
- Pêche
- Elevage
- Bois
- Coton
- Thé
- Palmeraies
- Café-Arabica
- Café-Robusta
- Cacao

Source: Bank of Zaïre, Rapport Annuel 1981

distribution of major government hospitals and State Health System (FONAMES) facilities (see Fig. 13). These principal hospitals are distributed among major urban places (regional and sub-regional capitals) and smaller urban centers such as:

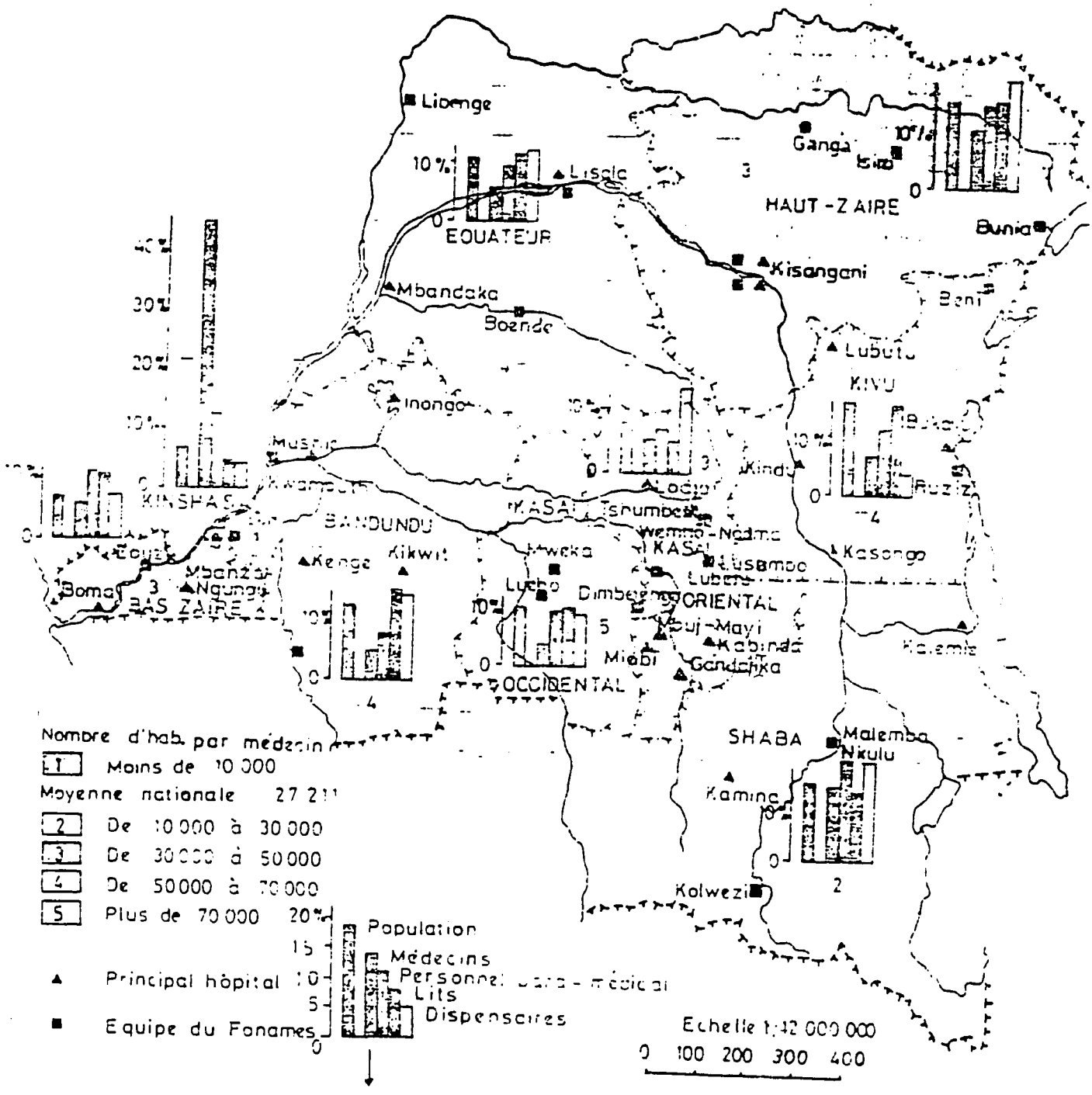
- Boma and Mbanza-Ngungu in Bas Zaïre;
- Kenge and Kikwit in Bandundu;
- Mbuji-Mayi, Miabi, Kabinda, Gandajika, in Kasai Oriental;
- Kamina and Kalemie in Shaba;
- Bukavu and Lubutu in Kivu;
- Kisangani in Haut Zaïre;
- Inongo, Lisala, and Mbandaka in Equateur.

Though private facilities are not mapped, it is clear that many regions are under-served (Kasai Occidental and Haut Zaïre), and the doctor/population ratios by region are extremely inequitable. About 45% of the doctors nation-wide are located in Kinshasa, while Kasai Occidental has the lowest number of doctors per population unit in the country (more than 70,000 inhabitants per doctor in 1978). There is a need to strengthen the ability of secondary cities to provide health services to their rural populations, through national planning exercises which would distribute available health sector resources to smaller cities in a more equitable and balanced fashion.

In summary, there is a need to upgrade local capability and to support local interest in planning and implementing a balanced range of urban functions in secondary cities (such as health care) in order to serve the needs of surrounding rural populations. Transport, commerce, and administration are the major services provided for rural areas by secondary cities, and rural residents' needs for these services were the major factors which generated the relatively even distribution of Zaïrian cities over the most demographically dense rural areas. The articulated system of large and small urban centers on each of Zaïre's three axes of urbanization offers the potential for equitable access to necessarily urban-based facilities for most rural people, since these axes are well located to serve existing population distribution. The inequitable distribution of health facilities and practitioners among urban areas is an example of a missed opportunity. There is unfortunately a relative lack of convergence between the administrative and economic roles of many cities, and this has generated a considerable amount of specialization of function by city. Shaba cities tend to have specialized industrial functions, for example.

FIGURE 13

HEALTH FACILITIES



Population, personnel médical et équipements par région en pourcentage du total national

Source: Atlas Jeune Afrique 1978

Secondly, it is of particular concern that there are few secondary cities with diversified urban economies that will be able to evidence self-sustaining economic growth and employment creation, thereby serving multiple economic development functions for rural areas. Encouraging economic diversification in secondary cities will require investments in urban water and power systems, technical and vocational manpower training programs, and the transport sector. These are pre-conditions for the industrial and modern informal sectors. Though secondary cities are geographically well-distributed as stated above, investments in improved rural-urban feeder roads are needed and would have major urban economic stimulation effects. For instance, agriculturally-oriented cities, with some agricultural transformation industries, are found on the northern axis of urbanization, but enhancement of their output will require investment in village-city transport links, which are especially under-developed in these parts of the north.

E. Transportation System Developments

As indicated earlier, transportation sector investments in Zaïre have played and will continue to play a key role in the stimulation of secondary urban center growth. Those centers which benefit from these investments will probably grow at faster rates, while those which do not benefit can expect to grow at slower rates, and to serve their rural hinterlands less effectively. This stimulation (or the lack thereof) will have far reaching effects on incomes and employment in the rural areas surrounding the urban centers and the cities' ability to provide credit, health, and educational services to their rural service areas, and to stimulate, collect, transform, and market rural agricultural production. To the extent that external communications and transport links are strengthened, particular secondary urban centers will be able to attract and retain the competent administrative and service personnel needed to serve rural areas.

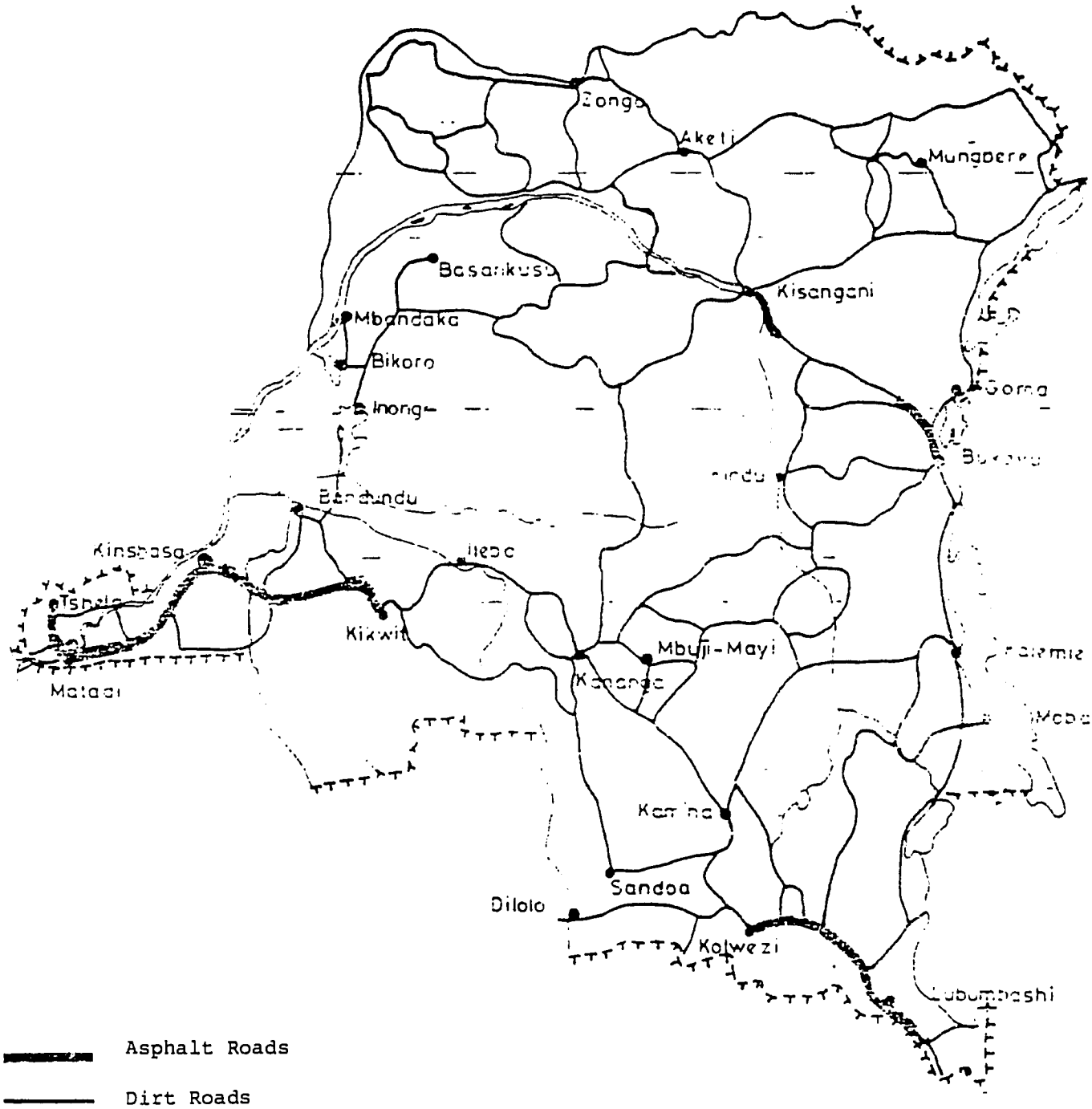
The immensity of Zaïre and its central semi-landlocked location in the African continent make its potential role a critical one in a trans-continental transport system such as the Trans-African Highway; however, its own priorities understandably remain focussed on national geographic and economic integration. Zaïre currently has only 2,200 km of paved roads. Three proposed road projects, (the National Road through Kasai, the direct Bukavu-Kisangani link, and the Trans-African), if realized, will bring the total to over 5,000 km. Fulfilling this work program by the year 2000 will certainly tax available donor financing and GOZ resources to the limit. See Annex III for details.

The following Figures 14 and 15 show first the existing road network in Zaïre and secondly, the proposed road network prepared by BEAU. This second figure is obviously a long range proposition, and though it carries through some of the historical trends to a logical future configuration, it over-emphasizes roads as a mode of integrating urban and rural areas to the exclusion of river and rail.

The BEAU plan, if carried through, will marginalize numerous historically important fluvial port cities and rail towns serving a great many of Zaïre's rural producers, particularly in the demographically dense Bandundu and Kasai regions in the center of Zaïre. Furthermore, transport investments focussing principally on roads will be an inefficient use of scarce resources for two reasons. First of all, river transport is only a fraction of the cost of road transport, and if coupled with fewer road investments, could extend an effective

FIGURE 14

EXISTING ROAD COMMUNICATION NETWORK 1982

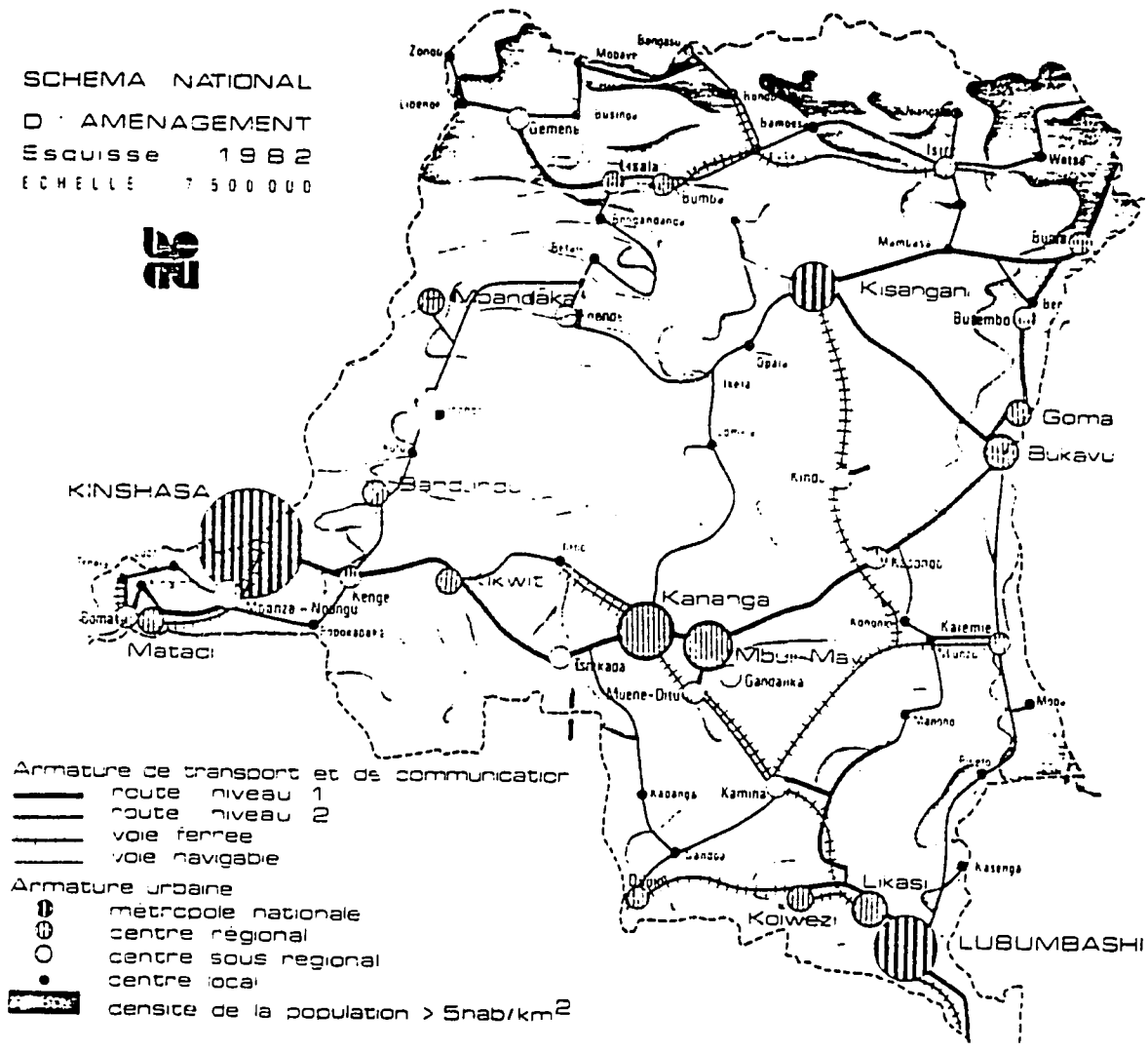


Scale: 1/12.000.000

Source: BEAU, "Aménagement du Territoire: Analyses Préliminaires et Orientations", June 1982.

FIGURE 15

UPGRADED NATIONAL TRANSPORTATION SCHEME
PROPOSED IN 1982 BY BUREAU D'ETUDES D'AMENAGEMENT URBAIN



Source: BEAU, "Aménagement du Territoire: Esquisse d'un Schéma National", January 1982, pp. 14-15.

internal transport system much farther with the funds available. Secondly, a substantial though deterioriated investment inventory in river and rail transport already exists, dating from pre-colonial times. River and rail are established transport modes made ineffective by lack of investments in expansion of their capacity and their management efficiency. The value of the existing investment in these transport modes and the potential for cost effective upgrading should not be ignored. It is recognized, however, that rail (and to a lesser extent river) investments are lumpy and weighted towards front-end loading, while roads can be upgraded more incrementally and still show local impacts.

With only 40 kms of seacost among its 5600 kms of frontier, the semi-landlocked setting of Zaïre is particularly problematic for the highly urbanized region of Shaba, and the densely settled region of Kivu. Shaba imports and exports are transported in one of three ways:

(1) the National Route, which takes over 70 days between Lubumbashi and Matadi, and which is the most expensive alternative, since it involves intermodal transfer between the rail from Shaba and river barge at Ilebo on the Kasai River, and a further transfer from barge to rail at the port of Kinshasa in order to reach the port of Matadi;

(2) the direct rail south to the South African port of East London;

(3) the direct rail east to the Tanzanian port of Dar-es-Salaam.

Over 60% of Shaba freight uses the less costly and faster exterior rail lines taking outside the country, along with the freight, the economic spin-offs and multiplier effects which transport employment would otherwise have generated on Zaïrian soil. Dependence on these external means of transport also makes Zaïre economically vulnerable to political changes, which can happen suddenly as they did in Angola, where the rail link through Dilolo across Angolan territory to the port of Luanda has been closed for years by the Angolan civil war.

To circumvent this external politico-economic dependence, and reinforce the role of secondary cities along the National Route, a twofold transport investment program would be required to first upgrade the capacity of the existing rail system (now saturated at its current capacity of 500,000 tons of freight per year), and secondly, to construct and maintain a road between Lubumbashi and Matadi able to carry heavy and

frequent commercial loads (25-30 tons each) as funds are available. There is disagreement among technical advisors about whether an asphalted treatment is preferable to a lower standard surface, since the latter might be easier to maintain under the projected continuing macro-economic constraints in Zaïre. Several feeder road segments which would link with the main road to serve local users are already programmed for asphalting, including the 74 km between Kikwit and Idiofa (assisted by USAID) and the 46 km stretch south from Kikwit to Gungu.

The densely populated Bandundu and Kasai regions in the center of Zaïre are environmentally constrained, by their sandy soils, from being economically linked by road with markets in Shaba, Kinshasa, and Bas Zaïre. These sands do not provide adequate road-building materials, forcing expensive investments in imported asphalting materials to be made, in order to bridge this multi-regional bottleneck between Kikwit and Mbuji-Mayi, thereafter linking with the less costly gravelled laterite roads which can be constructed north and south of this belt of sands. To obtain the rapid transport times desired between Shaba and Matadi, three ferries would also need to be replaced by reinforced concrete bridges, the longest span of which would be 350 meters (across the Loange River).

In spite of widespread agreement within Zaïre on the importance of this National Road No. 1 upgrading project, progress to date has been slow. Asphalting of the 550 km between Kinshasa and Kikwit was completed in 1977, and was jointly financed by the FED and the African Development Bank. Technical studies for the Kikwit - Kananga - Mbuji-Mayi section have been completed, and work has begun on the first 80 km from Kikwit of this stretch of the road, but the initial work will be largely pointless unless financing is committed for the balance of the 729 km in the sand belt.

Major issues relating to the demographically important and agriculturally rich Kivu are generated by its long term past orientation east towards the Indian Ocean instead of being well-integrated into the Zaïrian transport and communications systems. Though the Kivu is one of the least urbanized regions of Zaïre, with only 19% of its population in urban centers in comparison with over 40% urbanization in Shaba and at least 33% in Bas Zaïre, the Kivu's rate of urbanization is projected by BEAU to increase rapidly in the near future since its rural population densities are among the highest in Zaïre

(300 persons/km^2 near Bukavu and 100/km^2 in the area of Goma and Butembo)*.

Currently, the GOZ has emphasized investments in asphalting the 637 km road between the Zaïre River port of Kisangani and Bukavu as the main means of integrating Kivu production into the national economy. The Kisangani-Lubutu segment (260 km) and the Bukavu-Hombo segment (102 km) have been asphalted already, and work on the Lubutu-Walikale section was proposed to begin in 1983 with financial assistance from the FED, the KFW, and German bilateral aid. The whole road between Kisangani and Bukavu is expected to be completed by 1986.

It is unlikely that Bukavu will change its long term eastern orientation, in spite of these investment decisions, since the intermodal transfers west through Kinshasa are expensive and time-consuming, both for imports and for the perishable agricultural products which are the major Kivu exports. Only if Kivu production is destined for Kinshasa consumption, and if Zaïre River transport conditions become more secure from theft and delay, can the current strategy of linking the Kivu through the northern river axis become effective.

In the face of current macro-economic conditions, Zaïre can no longer afford the exodus of job creation and other economic spinoffs, through the external orientation of both of its richest regions (Kivu and Shaba). In both transport situations outlined above, that of Shaba region and Kivu region, an important emphasis is placed on the need for river or rail transport investments to accompany road investments if Zaïre is to truly benefit from the economic activities generated by transport.

In summary, past transport sector investment decisions have largely ignored rail and fluvial systems in favor of air transport during 1972-79 and now proposed national road systems. Both are expensive transport options. The former had little spread effect for urban economic development and no impact on improving rural producers' access to markets in cities. The latter, if not combined with upgraded rail and

*Note: This projection may not be fully justified, as the dense rural populations in the Kivu have been generated by its rich volcanic soils, and steep mountain slopes (making fewer areas suitable for settlement), and the agricultural productivity of the region is capable of supporting this high density.

fluvial transport systems, will have limited impact on internal geo-economic integration or the alleviation of inter-regional economic inequities, and may have serious negative economic consequences with the decline of important Zaïre, Kasai, and Kwilu fluvial ports as well as river-rail transfer cities.*

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* More detailed discussion of regional development inequities and a critique of current transportation investment planning is available in Annexes I, II, and III.

F. Causes of Rural-Urban Migration: A Sociological View

Previous sections of this Profile have examined some of the broader determinants of urban growth in Zaïre, including the geographic and historical patterns, the transportation impetus, the economic setting, and the development which has taken place in the country to date. Each has a powerful bearing on the growth of urban areas and people's individual decisions on where to live and how to try to earn their living. This section will examine the human issues, specifically the general conditions of life in the rural and urban areas leading to population shifts. In a later section, Kikwit, a secondary city which has experienced substantial growth over the last 20 years, will be examined and the connection made between urban and rural development.

Attitudes and Conditions Influencing Migration Decisions

Reported causes for rural-urban migration in Zaïre are predictable and confirm other Third World findings on migration which indicate the existence of a combination of rural "push" and urban "pull" factors, including:

- desire for higher income and an easier life; resentment of agricultural risks and delays in obtaining post-harvest cash receipts;
- avoidance of physically demanding agricultural work and rural social isolation (i.e. lack of communication/information);
- search for education and health services;
- avoidance of gerontocracy, family jealousy, sorcery threats and rural administrative demands (such as imposed crop choices, public works labor, and fines demanded by government agents for alleged violations of the law);
- desire for adventure (music, cinema, football and other sports spectacles), and for the women, flight from marriage to a low income peasant (since agricultural work has low prestige value).

Though not statistically significant, the results of a nation-wide CEPAS student survey (part of the INADES "Introduction to Development" Correspondence Course) are indicative of attitudes in Zaïre towards rural and urban living conditions. The responses of 72 students (who surveyed

350 informants, especially young people), were collated by Père Verhaegen, an INADES professor based at CEPAS in Kinshasa, in his unpublished paper on "L'Exode Rural au Zaïre". While citing many reasons for the rural exodus, respondents were aware of the negative impacts on over-strained urban receiving sites, and reported as their major concerns:

- urban infrastructure saturation (lack of housing, overcrowded dwelling units);
- unemployment (and a lowering of urban wages caused by excessive labor availability);
- crime (attributed to the unemployed);
- lack of consumer goods (excessive demand relative to supply);
- inflation of food prices and rents (diminution of rural food production and lack of urban housing production in comparison with increasing demand);
- disruption in household budgets and discontent in host families caused by the prolonged economic dependency of migrant visitors.

They were also aware of the negative impacts on the rural areas, and expressed concern primarily about the loss of the most dynamic youth in the agricultural workforce, the lowering of production and potential famine, the decline or even disappearance of some villages (along the Kinshasa-Matadi Road for instance), and the lack of transmission to the younger generation of rural skills and cultural traditions. The survey differentiated between migrants who successfully weathered the transition to urban life and were able to send aid back to rural relatives, and those who had not succeeded (and therefore either returned to the village or remained isolated and fatalistic in the urban areas). Uses of urban salaries included savings for rural land purchases (or rents) to provide resources for future dependents, especially by urban migrants who are anticipating the devolution of clan responsibility on their shoulders when older family members are gone. Reduction in rural paid labor opportunities in the face of post-Independence macro-economic decline was also cited as a "push" factor. Even if they remain in agricultural sector work, the young prefer salaries rather than self-employment, to avoid both having to wait for financial

gain, and needing to take production risks on their own shoulders.

Rural youth have the impression that "wealth" is easily earned in urban areas, without much effort, an impression which seems to be confirmed by the occasional return visits to the village of those who have earlier left for the cities. Obviously, on such occasions, visitors attempt to impress the villagers with their success, and arrive well-dressed, sporting any luxury goods that they have been able to purchase since their departure. These visits give the often mistaken impression to future migrants that success is easy to obtain. The visitors appear to be aging slower, and role models provided by those who have "made it" in the city, even without an education, particularly motivate rural youth to try their luck. Other Third World urban migration studies have shown that rural people will attempt urban migration even if chances of urban employment are statistically very low. It is sufficient that there are some cases of economic success known to potential migrants, to retain their aspiration level. The likelihood of being able to obtain higher levels of social services such as formal education, adult education and apprenticeship, as well as health care, has also been proved to induce high rates of rural-urban migration in other studies, even when urban unemployment remains high. Parents with upwardly mobile aspirations migrate to urban areas to ensure good education for their children and lower the risk of child mortality.

Urban entry into the informal employment sector is relatively easy, requiring merely the purchase of some soap, cigarettes, or other products, and is therefore open to all. Even the earnings of petty retail traders on urban street corners seem to be significant cash returns to many rural people. One survey respondent reported that most of the Butembo (Kivu region) traders had come from rural areas, and had set up their urban commerce as soon as they had amassed sufficient savings from agricultural profits to provide their start-up capital. The "boom town" mentality in some of the diamond areas, such as the vicinity of Mbuji-Mayi and Tshikapa in the Kasais, has drawn much of the rural youth in their zone of influence to abandon their villages and engage in independent prospecting.

Urban schools are more prestigeous than rural ones, attracting educationally motivated migrants. Once educated, young people understandably attempt first to find urban employment appropriate to their new "status", and return to rural areas only if urban friends or family members are unwilling to continue their support after a period of unemployment. Urban

studies in other Third World countries have often found unrealistic levels of employment expectation in graduates at all educational levels, and the preference to remain unemployed for long periods of time rather than accept employment below their level of aspiration.

Macro-economic factors have often discouraged rural producers, contributing to the attractiveness of urban alternatives - poor road conditions that discourage market intermediaries from reaching peasant producers, and the infrequency of transport to market (even when available) which delays peasants' cash receipts. Pricing policies have often not favored rural producers, and though prices have now been liberalized in Zaïre, producers are still often discouraged by seeing most of the profit from high urban food prices going into the hands of market intermediaries.

Luxury consumer goods as well as manufactured goods which are routinely used in rural areas are known to be found more readily and at lower prices in urban areas than (when available) at the prices sold by itinerant traders in the villages. Discouraged by the low levels of cash expended by their highly dispersed rural clientele, rural traders often exacerbate these disparities in rural/urban supply by relocating to urban centers where trade is more profitable.

The academic orientation of the Zaïrian educational system and the colonial elevation of "bureaucratic" office work were blamed by some respondents for the low prestige image of agricultural work. Such is the prestige of having had urban experience, that many prefer to be unemployed in town, rather than wealthy in the rural area. Even if one can not "make it" in the city, just having had some urban experience increases one's status in the village social structure. Radio and newspaper publicity, including popular songs which influence rural youth, all promote this image.

The survey respondents provided many reasons for young people's flight from rural social structure. Many of the Zaïre tribes provide no role in village decision-making for young people. All is decided by the elders, who treat the youth authoritarianly and with disdain. Those villagers with economic initiative are blocked by the jealousy of other villagers, who often sabotage their livestock production activities, for example, opening fences so that livestock which damage crops must be slaughtered and shared with the injured party. Village marital choices are still largely controlled by the elders, so in order to have free choice of a marriage companion, an urban area is preferable. For

villagers who feel that they are being persecuted by sorcery and witchcraft, flight to an urban area offers sanctuary, since the village-based malignant influence is thought to be ineffective there. (However, during 1971 survey work in Kananga, Zaïre, the author observed many cases of urban-based sorcery and witchcraft allegations, usually among urban-based members of the same family. Strangers are rarely feared as originators of supernatural adversity). Those who are the primary beneficiaries of family inheritance may choose to migrate to avoid the jealousy of other family members, as well as those who are involved in interminable inheritance conflicts which are causing rural family disputes.

Particularly if one has an uncle or other sponsor who will initially provide food and lodging and help one get established in an apprenticeship or other commercial or educational situation, the opportunity to migrate is difficult to pass up. It is easier to profit from having well-off urban relations if one migrates to live with them, rather than if one merely waits in the village hoping they will send back cash and gifts.

Even if urban families can not afford to support recent migrants as dependents, they will attempt to stretch their household budget to meet this obligation, since inhospitality would make them vulnerable to being shunned by the extended family in future, an ultimate social sanction equivalent to being "disowned". The burden of supporting extended family members as dependents can even cause marital disruption among urban husbands and wives, since one party or the other may feel the other's family members are parasites on the household economy. As a whole, there is acknowledged to be a change in social atttitudes in urban areas, towards individualism, and a more narrow definition of family obligations. Some survey respondents saw this as positive, encouraging and rewarding individual initiative, "modernizing" attitudes, and reducing traditional fears and superstitions. Others saw this as negative, threatening family solidarity and traditional moral (including sexual) norms.

Once successful in urban areas, migrants are unlikely to retire to the rural areas because of:

- financial burdens which would be placed on them by fellow villagers;

- the social isolation which they would feel, lacking means of satisfying their acquired tastes for cosmopolitan leisure time activities;

- the risk of sorcery they would incur because of the jealousy of other villagers.

These attitudes reported by INADES survey respondents, which result in urban migrants' decision to remain in urban areas after retirement, were also supported by the author's personal interviews with retirees and the pension service in Kikwit.

A 1974 INS study* of Kananga, one of Zaïre's largest secondary cities, was just recently published, and sheds some interesting light on the mix of migrants and native residents in that city, and the motives for migration. The residents were almost evenly divided between those born and raised in Kananga (50.6%) and immigrants (49.4%).

A total of 97% of the immigrants had come from the city's own region of Kasai Occidental (76%), Shaba (10%) probably through the traditional ethnic and family bonds between Luba Kasai and Luba Katanga tribes, as well as from adjacent Kasai Oriental (8%), and Kinshasa (3%). This underlines two propositions: (1) that most secondary cities, as interview case material indicates for Kikwit as well, are predominantly absorbing rural populations from their own regions. To the degree that these secondary cities are competitive with Kinshasa in attracting migrants to settle in the region instead of moving directly from the rural area to Kinshasa, it is possible to maintain more evenly distributed regional populations, and to keep migrants agriculturally active, especially in cities like Kikwit and Kananga whose residents have developped extensive agricultural fields on the urban fringe. The data also suggest (2) that migration paths are not unidirectional from secondary cities to Kinshasa. While the largest flows seem to be in that direction, there is also a flow from Kinshasa back to secondary cities, as the 3% of migrants reported for Kananga indicates. As in Kikwit, where artisans are often trained in Kinshasa and return to the smaller center to establish their businesses, this reverse migration probably has two major components:

(1) migrants who went to Kinshasa for education (formal or apprenticeship) and are moving to less competitive markets for post-graduation employment (including self-employment);

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* Etude Socio-Démographique de Kananga 1974, Direction des Statistiques Démographiques et Sociales, Institut National de la Statistique, Zaïre, 1978. (Though dated, these were the most accurate recent statistics available.)

(2) government personnel reassigned from Kinshasa to secondary city administrative positions in the interior, who bring dependents as well.

The reasons reported by Kananga migrants for their decision to move to the urban area are forceful reminders of the large number of dependents who accompany each migrant. The largest numbers of migrants reporting a specific motive for their move were seeking either employment (17%) or education (9%), but they were accompanied by spouses (12%) and other family dependents (50%). Therefore of total migrants, which in all composed half of the Kananga population, 62% were dependents who were accompanying the 26% who were looking for work or education. Compared to these motives, those who migrated to obtain health services were relatively small in number (~2%), but it is still likely that health care is a major factor in short term rural-urban movements.

Reverse Urban to Rural Migration Trend

Findings from a 1980-81 survey of 923 young people (aged 18-30) in 71 of the 191 villages of Djuma parish, recently published (January 1983) in Agripromo magazine*, provide valuable insights into migration decisions and the rate of return from urban to rural areas. Djuma parish in Bandundu region is located 160 km north of Kikwit beyond Bulungu, in a relatively densely populated (58 persons per km2) area of Zaïre, which is fairly accessible to the Kinshasa markets (600 km away). The survey was undertaken by two missionaries, Théo Bebels and Willy Van Impe and took place between November 1980 and February 1981 (the rainy season). The survey obtained, on average, a 20% response rate from young people in these villages, though this masks a range of extremes between 5% and 35%, providing some potential bias, since the authors did not fully explain why non-responses were frequently encountered.

The respondents were mainly aged 20-25 (56% of total), and from age 23 on the rates of marriage increased rapidly. The educational distribution of respondents is summarized below, showing a fairly high level of educational achievement for village young people. It is likely that less educated or uneducated village youth, who lacked urban experience, are under-represented in the survey responses through shame or lack of interest in participating and therefore the

* "Une Enquête au Zaïre: Les Retours au Village dans la Région du Kwilu", INADES Agripromo No. 40, January 1983, pp. 11-12.

findings,if generalized to represent the whole population of village youth, would probable significantly overstate the rate of return from urban migration to village life.

TABLE 5

1981 SURVEY OF DJUMA PARISH, AGE 18-30:
LEVEL OF EDUCATION

Amount of Education	% of Total Sample
- no schooling	11%.0
- 1-3 years of primary school	21.9%
- 4-6 years of primary school	33.4%
- some secondary school	33.7%

According to Père Verhaegen of CEPAS, however, only those (16.8%) who had completed the first two years of secondary school would have a reasonable chance of finding regular salaried employment in an urban area. It is particularly important to note that only 32.7% of the survey respondents had never left their village to live in a city for a year or more. Secondary cities are even more important as destinations for migrant rural youth than Kinshasa. Of the remaining 67.2%, less than half had returned to their village after spending a year or more in Kinshasa (31.6%) and more than half had had spent this amount of time in another city (35.6%).

Specific reasons reported for the decision to return from an urban area to the village were predominantly urban unemployment (36.9%), "called back to the village" (25.4%), and lack of family support in the urban area (8.9%). The remaining 28.8% returned "of their own will" but it is hard to interpret what this means. Some of these returnees might have become school dropouts through lack of continuation funding. The authors interpreted their findings to mean that the village youth who had migrated to urban areas in search of further education or employment, but who had been unsuccessful and were unable to find family sponsors willing to continue their support in an urban area, formed the bulk of those who had returned to their village. Most (about 59%) of those who returned to their village did so between the ages of 21-25. Since a rather high percentage of respondents aged 18-19

reported never having left the village, it is likely that urban migrants in this age group are still struggling to establish themselves in urban areas or are involved in education outside the village.

The authors hypothesize that the Zaïrian economic crisis has weighed particularly heavily upon unemployed youth in the cities, and that the crisis has played a critical role in maintaining rural exodus at more moderate levels than would otherwise have been the case. About 77% of the young people who had never left the village were aged 18-23, implying that they had been more reluctant to take a chance on urban migration than their elders (aged 24+).

In their reports of urban employment, those who had returned to their village seem primarily to have been either students, small scale traders, or otherwise unstably employed in informal sector activities. Less than 10% found work as household domestics, and less than 15% found skilled jobs (tailors, drivers, mechanics, electrical work, or even market gardening). Overall, almost 80% were unable to find stable urban employment.

As one would expect, among those who had returned to the village, as well as those who had never left it, agriculture was the primary rural economic activity (55%). Nevertheless, trading remained significant (over 10%), and some skilled trades were practiced (lumbering and carpentry, nursing, mechanics, drivers, religious vocations, teaching, tailoring, fishing, for a total of more than 20%). About 5% reported being unemployed, even in a rural area where agriculture can be practiced by all, and 2.5% were still students. Involvement in trading was slightly higher in urban areas than in the village, but was a major economic activity in both settings. Among those traders now based in the village, some maintain regular urban movement patterns, traveling frequently between Kinshasa and Djuma. The authors reported that most of those who had learned an employable skill in an urban area were able to continue its practice back in the village, with the possible exception of those who reported themselves as "mechanics".

Though the responses were not analyzed by correlation methods, and therefore many interesting questions can not be answered (such as whether there is a relationship between educational level and the decision to emigrate and/or rural employment experience), the findings suggest some important trends, at least in rural areas such as Djuma, which are accessible to Kinshasa and major secondary cities like Kikwit. The survey

designers, however, lacked sociological training, and unfortunately framed many of their most important questions (e.g. reasons for return to the village from the urban area) in such general terms that it would not be worth reanalyzing the original data using more sophisticated methods.

Tabulations were prepared, by age group, of the year in which each respondent returned to the village but no particular age-related life cycle pattern is apparent (for instance, suppose most returned at age 20 after completing secondary school but being unable to find a job). Rather, it seems that the accelerating macro-economic crisis (from 1973 on) in Zaïre has been the "push" factor which is forcing young people of all ages to return to their villages, since urban economic opportunities are declining in proportion to demand, and high urban food costs are discouraging most families from supporting migrant dependents from the villages. The table below shows this accelerating trend of "return to the village" after the 1974-75 "Zaïrianization" decree which confiscated most expatriate-owned businesses and brought many of them rapidly into bankruptcy under inexperienced new management.

TABLE 6

DJUMA PARISH SURVEY: RATE OF RETURN TO VILLAGES, 1965-80

- 1965-1972: 3 persons/year
- 1973-1974: 16 persons/year
- 1975-1977: 50 persons/year
- 1978-1980: 138 persons/year

In all, 50% of the returnees were aged 20-25, the group clearly most at risk in an economic recession. Conversely, 77% of those villagers who had never emigrated were also in this high risk age group, obviously having been discouraged before even attempting an urban move.

It is particularly significant to note that though 79% report that they like their village work, only 56% say that they would prefer to stay in the village. On the other hand, 31% explicitly stated that they would rather be able to live in an urban area. One can expect, therefore, that if urban economic conditions improved, without counteracting improvement in rural incomes and living conditions, this trend of "returning

to the village" would decline. To put the situation another way, though 509 respondents were currently working in agriculture, only 166 (18% of the sample) expressed a preference for this vocation. A stable 11% preferred commerce (more or less the proportion already so engaged), while 22% expressed a desire to become driver/mechanics. Training which would enable one to enter teaching, tailoring, or nursing was also requested. Overall, 385 young people or 45% expressed a desire to enter non-agricultural employment sectors, though only 72 were actually able to find such work in the Djuma villages.

No data is provided on those who had emigrated but not returned, which could be used to make overall statements on emigration rates in this area. Djuma is also relatively unique, in its proximity to Kinshasa and Bandundu secondary cities, so its findings are not generalizable to more remote rural areas. It is unfortunate, as well, that the survey does not provide sexual breakdowns of its data, and does not permit statements about whether high educational attainment is predictive of higher or lower rates of rural exodus. Counter to conventional wisdom, it may in fact be the case that middle level educational achievement (some secondary school) gives one more of a competitive edge for obtaining attractive non-farm employment in rural than in urban areas.

In summary, over two-thirds of the young people living in Djuma villages in 1980 had had some extended urban residence, but rural exodus had proved not to be a one-way street. It is likely, however, that in rural areas like Djuma, where such a high proportion of the young people have had urban experience, that profound attitudinal modernization is being exported from urban to rural areas causing, for instance, acceleration in the move away from subsistence agriculture into involvement in the cash economy among Zaïrian peasants.

Another effect of this changing orientation of the rural population is likely to be a significant increase in village-level demand for rurally useable non-farm vocational training, as reported by Djuma youth. It is unfortunate that formal artisanal vocational training is mainly available only in Kinshasa, encouraging rural young people who desire non-farm employment to migrate all the way to the capital, and lowering the probability that they will return to their own region to start their businesses afterwards. With increased support to establish short-term training programs in artisan and technical trades as well as agricultural technologies and processing in secondary cities and major market towns, these centers could play a significant role in attracting and

training unemployed rural migrants for productive non-farm employment activities which would serve the rural areas. Such training should be linked with credit programs for seed capital to start-up new businesses.

The two sections following this one will explore in more detail the living conditions in larger Zaïrian secondary cities, and the specific rural-urban interactions observed in Kikwit, a smaller secondary city. These observations should serve as a basis for further recommendations on AID strategies which will begin to meet the opportunities and needs generated by the short term and long term rural-urban migration reported in this chapter.

G. PROFILE ON URBAN LIVING CONDITIONS IN SECONDARY CITIES

The purpose of this section is to give some perspective on the characteristics and living conditions of urban populations in secondary cities. While the most recent available information is dated ('73 - '76 surveys), it is felt to be a fairly accurate base from which to project trends, since the economic decline which began at that time has continued, and living conditions have been considerably eroded. Over the past decade and a half, Zaïrian secondary cities have in some respects been displaying more of the social characteristics of maturing urban areas, such as in the increased parity in male/female sex ratios, even in Shaba mining cities like Lubumbashi where the earlier pattern of male migration predominated. In other respects, they maintain the characteristics of most Third World cities, displaying the major demographic imbalances typical of rapid rural-urban migration.

One clear example of demographic imbalance is the distortion of urban age pyramids towards a predominantly youthful and economically dependent population. In the 1974 INS survey of Kananga, introduced in earlier chapters, it was found that over 63% of the city's population was under age 20. BEAU survey results from Lubumbashi (63% under 18) and Kisangani (58%) during the '72-'73 period also showed the same imbalance. Particularly in view of the national macro-economic crisis in Zaïre, which began shortly after these surveys, and which has consistently worsened over time, the high dependency ratios found in these earlier studies have certainly become more extreme. The trend from '55 to '73 in Lubumbashi had already shown a doubling in the dependency ratio from 3.6 dependents/salaried worker to 7.3. In 1973, Lubumbashi, probably the most well-off of the Zaïrian secondary cities through the local investments of GECAMINES (the national copper-exploiting parastatal), only 13.8% of the city's population was remuneratively employable, and they were economically supporting the 40% of the population which was under school age, elderly, or unemployed, as well as the 46.3% which were students or housewives.

Unemployment in urban areas of Zaïre has been high for years and is increasing dramatically. Even in these early surveys, 30% of men aged 15-24 who were not in school were reportedly unemployed in Lubumbashi, in spite of GECAMINES activities, and their economic spinoffs. In '76, in Bukavu, 66% of the workforce was officially unemployed. In actuality, most urban households only survive economically through household heads maintaining multiple occasional jobs, whose earnings are

supplemented by the informal sector incomes generated by wives and other household members through trading or agricultural activities on fields at the urban fringe.

The employment structure of most Zaïrian secondary cities is strongly skewed towards tertiary services (75% of jobs in '76 Bukavu and 60% of all formal sector jobs even in '73 in Lubumbashi, a city particularly well sited for primary and secondary sector development) and informal sector artisan and trading activities. Within the tertiary sector, government is a major source of urban employment (40% of all jobs in '73 Lubumbashi). Even prior to '74 "Zaïrianization" and the loss of many jobs through ensuing business defaults (many of which were not rehabilitated by '76 "retrocession"), only a 50% increase in urban jobs had occurred in Lubumbashi from '57-'73, compared to a doubling of its population. Effectively, the remuneratively employed share of the city's population had been cut in half. Projecting these statistics to the present, unemployment has become a leading urban problem causing crime and widespread dissatisfaction.

Food consumes the lion's share of urban household budgets, certainly more at this time than the 61.5% of household expenditures reported in the Lubumbashi survey (even though adults were consuming only 66% of minimum daily food requirements). Urban food price inflation has been exponential while formal sector wages, which are government-controlled, have been far out-paced by these price changes, especially since the recent devaluation (summer 1983). During the RHUDO mission, the price for a sack of manioc (the food staple in Zaïre) jumped 50Z from 350Z to 400Z in Kikwit, and the same sack was 900Z in Kinshasa (8 hours away by paved road). The average monthly salary for a secondary school teacher was still at the controlled rate of about 600Z/month nation-wide, so an average school teacher could probably not even supply the food staple for his household from his monthly salary, much less pay rent, clothing, and school fees without outside income. Under these conditions, the prevailing low morale among salaried urban workers is rather understandable. In order to survive, many are supplementing their salaried income either through other jobs (often performed during official salaried hours) or through corruption. The consequence is a major loss in formal sector worker productivity.

Since education is seen as the major route towards upward economic and social status mobility, the demand for urban educational services is high, both by migrants and indigenous urban residents. The high rate of Zaïrian school attendance

is evidenced in the Lubumbashi study where 83% of males and 75% of females age 6-15 were enrolled in school (though enrollment for females dropped to less than half that of males for secondary school attendance). Exacerbated by the demand of large numbers of rural migrants seeking both schooling and employment, urban educational systems will require major new investments in educational facilities and programs to meet projected needs. The principal source of funding for educational facilities (as well as health services) continues to be private voluntary organizations servicing both cities and rural areas.

Migration has been a major contributor to urban population increase. As was found in Kananga and Bukavu, almost half of the Lubumbashi residents were rural migrants. The rate of population increase in Lubumbashi during the survey year was twice as high as the rate of natural increase.

In order to have access to the public services available in central areas and to avoid expensive transport costs, most migrants surveyed used the planned "cités" (pre-Independence African neighborhoods constructed by the Belgian authorities) as their initial source of urban housing. In response to this demand, cité residents had constructed infill rental units in these areas generating high densities (408 persons/hectare and 1.75 households/compound in Lubumbashi in '73), thus overloading public facilities, and accelerating their deterioration. Upper income central residential areas remained much less dense (40 persons/hectare). In order to become homeowners, most migrants had to move from the centrally located planned cités to the outlying squatter areas (176 persons/hectare). This was the usual pattern after housing construction capital had been assembled. For instance, 52% of Lubumbashi residents in squatter areas reported that they had formerly lived in the planned cités. Density inequities were even more extreme in Bukavu, with 50 persons/hectare in upper income areas, and 545 persons/hectare in the "cités" in '76.

Urban shelter and physical infrastructure problems in Zaïre are enormous. Since Independence there has been almost a complete halt in public utilities or housing investment. In 1973 in all Lubumbashi squatter settlements, no public power or water was available, with the exception of two water points in one neighborhood. Some squatters had constructed shallow wells; most used the river. Most occupied hazardous sites on river banks and in swamps. No public garbage collection was available and no motor vehicle transport was possible within most squatter zones. No public health facilities had been

constructed. Despite these unserviced conditions, in 1973 housing was the second highest household expenditure (an average of 14% of both homeowner and tenant budgets).

Disinvestment in public facilities and housing had been even more extreme in Bukavu, where only 25% of the housing (mainly '45 - '60 construction) was made of durable materials in BEAU's 1976 survey. From '60-'76, only 50 new units had been constructed of durable materials. By the time of the survey, 75% of the city's housing stock had been owner-built since Independence, and densification through infill construction in the planned "cités" was overloading the public utilities in those neighborhoods. Major life-threatening erosion had attacked the squatter housing on sloping sites, a significant problem in many other secondary cities as well as in Kinshasa. No overall urban development plan had been approved, and post-'60 construction had been anarchic. As in Lubumbashi, no public facilities or services had been instituted in squatter areas.

In summary, urban demands for employment, education and health services, housing and public infrastructure investments have been increasing exponentially in Zaïre since these surveys were undertaken. Meeting existing demand is far beyond the capacity of GOZ financial resources and institutional capacity. Perhaps the single encouraging note in the historic picture of urban conditions presented above is the longlived experience of the urban poor in providing for themselves, as evidenced in home construction. This self-help style should be capitalized upon and promoted in any future urban project efforts to ensure a maximum spread of project benefits at lower costs per capita. Until recently, donor and lender interest in upgrading urban housing and physical infrastructure had been limited to Kinshasa. An encouraging initiative towards addressing Zaïrian secondary cities' infrastructure has just come under consideration at the African Development Bank. Described in more detail in Annex IV, the Bank is reviewing the February 1984 terms of reference for financial and technical feasibility studies for water supply systems in 15 Zaïrian secondary cities. The studies are expected to take place over a 15 month period, if financing is secured through a loan from the African Development Bank to the Government of Zaïre. The target cities are major regional and sub-regional centers in six of the nine regions of Zaïre (see Fig. 17 in the annex) and many are important transportation hubs. They have been identified as priority urban sites because of their economic potential, high rate of growth, prevalence of water-borne disease, and obsolete or unsuitable water supply systems with limited distribution networks.

If funded, the studies will also collect and analyze social and economic data on all of these cities which will provide a better basis for identifying other priority investments, and which will assist AID and the RHUDO to monitor economic living conditions in outlying urban areas. It is recommended that AID keep in close touch with this loan proposal, and consider financing selected elements of the studies or their implementation strategy, if indicated by the African Development Bank's actions.

H. KIKWIT: THE RURAL-URBAN CONNECTION

Between 1970 and 1985, the urbanized share of Zaïre's population will have increased from 21% to 39%. This can be seen as a positive socially modernizing element and it is, in fact, a trend which can not be avoided. Indeed without urban development of commercial and transportation services, rural areas would be confined to subsistence agricultural production, since no outlet for marketable production surpluses would be created, and access to markets would be cut off. In order to enhance positive urban impacts on rural areas, however, several concerns must begin to be addressed in development projects: (1) reinforcement of inter-urban linkages so that interior urban centers can actualize their potential productivity, and (2) expansion of urban-rural linkages to avoid isolating cities as islands surrounded by noncash rural economies.

Few existing macro-economic indicators for Zaïre can be analyzed to reveal the extent of rural-urban linkage. For example, past calculations of differences in rural and urban per capita incomes in Zaïre are relatively meaningless, since they do not take into account:

- rural investments made by urban dwellers, or financed by urban incomes through remittances to the rural extended family;
- the impact of urban infrastructure investments on rural incomes and rural access to education, health services, and informal sector income-earning;
- the population flows between rural and urban areas on a daily, weekly, seasonal, and multi-year basis, over the course of a life cycle.

Statistics on user-origin are not collected by urban schools and health facilities, so it is difficult to determine the outreach of urban social sector investments without on-site field reconnaissance activities. Aggregate national population figures only reveal numbers of children and adults by sex, and do not record birth place or prior migration decisions. Only for a few cities where detailed surveys were collected during the early '70's, do we have data on the areas of origin of urban-dwellers, relative migration rates, and the mix of rural and urban economic activities of urban families. Only for villages in the Djuma parish of Bandundu do we have a picture of the rural-urban migration rates among rural youth, their employment in both places, and their future aspirations for rural and urban activities.

BEAU survey teams in both '70 and '76 noted a stable pattern in which about 17% of Bukavu households simultaneously maintained both urban and rural residences, leaving the urban one empty during periods when the household returns to cultivate or harvest rural fields. This pattern both fosters rural/urban interaction and interdependence and it is a product of it. This practice has become more popular as an economic survival strategy in secondary cities in recent years, especially affecting groups with homelands near cities.

At least two-thirds of Djuma parish village youth (160 km north of Kikwit in Bandundu Region), have spent a year or more in an urban area, and have returned to their village because of urban unemployment and high cost of living. Four out of five of these young village agriculturalists aspire to return to the city if macro-economic conditions improve. Though this secondary data provides a strong indication of rural-urban trends, a more detailed data base is needed for project identification and development.

For this reason, RHUDO and USAID Zaïre requested that eight days of the consultant's time be spent in Kikwit, to prepare a case study of the rural-urban interactions observable in this city of 160,000 population. As the largest city, commercial center, and transport hub of Bandundu Region, Kikwit is of central concern to USAID Zaïre, which is targeting most of its infrastructure investments in support of agricultural productivity, towards roads and possibly fluvial transport systems in this region. The second half of this profile summarizes the case study findings in sectoral detail, while this chapter will draw together insights on overall trends in rural-urban linkage which can be predicted from the study of Kikwit. Emphasis will be placed throughout on ways in which existing systems could be reinforced to enhance the services and economic stimulation provided to rural by urban areas.

Urban Functions

As a whole, analysis of the synergistic relationships between Kikwit's commercial and transport sectors, public utilities and population size support the "critical size" hypothesis - cities of over 100,000 population have many of the pre-conditions for economic diversification and self-sustaining growth which smaller cities lack, e.g. ability to support a viable formal banking sector. Like many other secondary cities, Kikwit is primarily attracting migrants from its own region. The geographic radii of influence of its services for rural areas vary according to service sector. Each major service sector will be briefly discussed below,

first in terms of its positive role in rural development, followed by concerns which will need to be addressed in development projects if the city's outreach to rural areas is to be improved.

. Commercial and road transport interests for the region are centered in Kikwit. The city's commercial and road transport activities are evidence of a thriving private sector, largely indigenous, which has replaced the expatriate interests dominant prior to '74 Zaïrianization. Kikwit is fortunate in that its improved linkage to Kinshasa by paved road without ferries since '77 has stimulated its commercial role in assembling agricultural production for Kinshasa (and to a lesser extent Shaba) markets.

The small number of large scale Kikwit entrepreneurs are providing a critical service for rural producers, by assembling and trucking rural agricultural production to markets in Kinshasa, Shaba, or towards external export. Their activities are made possible by financing from the Kikwit branch of the Commercial Bank of Zaïre which has the best liquidity in the region, thanks to its concentration of commercial depositors. Large-scale merchants from all over the region must travel to Kikwit to use its credit facilities since the region seems unable to support more than one bank with dependable liquidity. The role played by this urban bank is critical for rural agricultural marketing, since it is the major source of regional credit for entrepreneurs' crop and transport vehicle purchases.

The structure of Kikwit's large scale entrepreneurial investments directly links rural and urban commercial and road transport activities. Almost all of the major Kikwit-based road transporters own and manage diversified operations which include control of: (1) truck fleets which transport rural production; (2) the limited existing agricultural processing industries; (3) warehouses in Kikwit and smaller market towns; (4) wholesale/retail outlets in Kikwit and major market towns which provision smaller itinerant rural traders in manufactured goods for the interior. As the major crossroads for road transport heading farther east and south below the Zaïre River, especially since it is a convenient day's drive from Kinshasa, Kikwit is the most demographically central location for regional road transport, and is equipped with hotels and restaurants. The region's high-level entrepreneurs have been attracted to Kikwit by the access to government fuel allocations, vehicle repairs, river and road transport, formal sector credit, and urban amenities (electricity, water, housing, and entertainment) which the city provides with more

regularity than is available in the rest of the region. These urban amenities both supply an adequate standard of living for these entrepreneurs, and provide opportunities for the diversification of their economic interests (bar ownership for example).

Though these commercial services are contributing positively to rural-urban linkage, the concentration of so many crucial services in a small number of hands raises concern for long run rural development. Numerous donor and governmental policies are combining to restrict entry to this class of economic activity, which encourages non-competitive rate-fixing and route distribution within the rural feeder road service areas. This situation could prove increasingly dangerous to the interests of rural clients. Examples of the policies which are promoting continuing concentration of capital in the hands of existing entrepreneurs include:

- high entry barriers to formal sector credit (minimum deposits and high transactions costs);
- centralized allocation of private sector vehicle fuel allocations by the Chamber of Commerce, which favors its most influential existing members;
- reservation of vehicle import licenses, even by development organizations, for those who are already the largest and most well-off vehicle fleet owners.

Enhancing Kikwit's stimulation of rural economic development will require finding ways to expand this entrepreneurial class, by reducing entry barriers to vehicle purchase and operating capital to allow more price competition. Donors should demand that entrepreneurs benefitting from assistance projects expand their service areas to include lower quality (less accessible) roads, and should support alternative marketing, transport, or transformation systems (producer cooperatives or smaller scale entrepreneurs) in secondary cities. In summary, it is apparent that Kikwit is serving a crucial transport and marketing function for rural producers. It is also clear that this role could be expanded, preferably through more equitable design of urban credit and transport projects, and a priority for upgrading feeder roads in productive, densely settled, but under-served areas.

. River transport was one of the historical determinants of urbanization on the site of Kikwit, which is the terminus of navigation on the Kwilu tributary of the Kasai River. River freight exploitation by ONATRA, a parastatal agency, has allowed colonial investments in ports, barges, and channel maintenance equipment to continue in use. Kikwit is typical

of many Zaïrian secondary cities and market towns in that the river transport system and its colonial rail extensions were assets that generated urbanization on their sites, but post-Independence disinvestment in these key infrastructures, and parastatal inefficiency in their exploitation, have reduced their economic value to these cities and their rural areas. Private sector road transport has become more competitive for food products, though more costly.

The major source of domestic road maintenance funds is a recently imposed gas tax, which ties investment to user fees, and represents a somewhat progressive step. Overall, however, this transfers the financial burden for interior roads to rural people, since this gas tax will inflate the prices they pay for imports and manufactures, and reduce the prices they receive for their agricultural production (unless urban food prices increase faster than rural sales prices to support this share of the tax). Projects which would increase the speed, security, and efficiency of ONATRA transport on a Kwilu-Kasai systemwide basis would open this export mode to rural producers and/or producer cooperatives. The transport savings through the use of river instead of road (if spoilage losses through time delays could be avoided) would put a larger share of Kinshasa sales profits into producers' hands. Concurrently this would reduce the rate of urban food price inflation, which is largely caused by imposing on consumers the rapidly escalating fuel import costs for road transport, in an atmosphere of currency devaluation.

A major development concern is raised by the fact that Kikwit port handles volumes of goods which are significantly below its capacity level, because users are discouraged by system-wide delays in scheduled service which cause spoilage of perishables. The risk of theft en route is also high. Though fluvial transport is only 1/5 the cost of road transport, with the exception of palm oil and nuts (the principal regional exports) which can withstand these delays, most agricultural produce is sent by road to Kinshasa. Improving service by shortening travel times could make river transport an economically attractive profit-saving alternative for rural producers in Kikwit's large service area, giving them a cheaper alternative for transport to markets in Kinshasa for their manioc, corn, and rice crops. This would require extensive investment on a systemwide basis downriver from Kikwit in improvement of management and security practices as well as channel maintenance and transhipment hardware, and would require feasibility studies to determine whether this would be cost effective. Kikwit port operations are slowed by saturation of the city's electrical power

system, so electrifying the loading process during the whole workday would be one contribution to decreasing fluvial transport bottlenecks.

. Energy and water sector limitations hamper the viability of Kikwit as a site for industrial or even modern informal sector development. Power to run the city's water and electrical systems is extremely limited, since it is dependent upon obsolete diesel motors and limited fuel allocations. The most recent investment in a motor for the electrical utility system was a decade ago. Only a small share of existing electrical demand is served, and no new users have been permitted to connect to the system for several years, since it is currently overloaded. Subscribers are served a maximum of only 7 1/2 hours per day, and there is considerable corruption in user fee recovery. The largest users do not pay at all.

The city's water intake on the Kwilu River is polluted by discharge from the Lukemi River tributary immediately upstream. Existing water system capacity only serves 30% of the city's population, and waterborne disease is a major public health hazard. Extension of water and electrical services to unserved neighborhoods, which comprise most of the city, is critically needed.

Employment generation and economic diversification is being constrained by both electrical and water system limitations. Virtually no industry exists in the city at this time. Agricultural transformation is limited to a few small mills run by generators. The ILO has focussed upon the "modern" part of the urban informal sector in job-creation projects in other countries, as being the most effective domain for economic encouragement. Examples of these types of activities include mechanical and electrical work, metal and wood fabrication, and the building trades. The nucleus of a viable modern informal artisan sector exists in Kikwit, concentrated along the single electrified road which passes through the central cité residential areas, since its carpenters, metalworkers, and mechanical and electrical repair shops use electricity whenever possible, to run power tools and provide light to work by. This urban sector offers potential for expanding rural off-farm employment by training migrant apprentices in rurally useable technical skills, and would be stimulated by expansion of electrical services in Kikwit.

Hydroelectric potential could be developed technically on at least four sites in the vicinity of Kikwit, and is under consideration for funding by German aid. Secondary cities' economic development would be greatly accelerated by the

exploitation of alternative energy sources wherever feasible, since they are disadvantaged in competing with primate cities for scarce imported fuel allocations, and are more remote to service with regular fuel deliveries. The African Development Bank is considering loan support for a feasibility study to upgrade and extend Kikwit's water system as part of a GOZ initiative in 15 secondary cities throughout Zaïre. These initiatives, complemented by USAID road and river transport investments, could be coordinated to develop a multi-donor and lender Kikwit pilot project in the stimulation of secondary city economic services to rural areas.

. Educational institutions in Kikwit have a region-wide and even national attraction because of their longterm reputation for excellence (a factor of Jesuit historical presence since 1910, complemented by more recent establishment of highly respected science and commercial schools by other Catholic orders, and the government's decision to locate the regional secondary teacher training school in Kikwit). The Diocese of Kikwit is second only to Kinshasa in being the most educationally advanced diocese in Zaïre (defined as having the most students enrolled in Catholic secondary schools). The educational sector is highly dependent upon non-governmental resources, since 60% of the city's school system is financed and managed by private voluntary organizations (PVO's).

Rural-urban linkage through secondary cities' educational services is particularly strong within technical schools, since a technical educational is not prestigeous in the eyes of the upper classes. Of the technical school students in Kikwit, 88% come from low income rural families. These village youth are financially supported by the wider clan during their secondary school years and they must repay these "loans" after their graduation and employment. The usual means of repaying this debt accelerate rural-urban linkage through (1) sending capital back to the rural area, (2) providing support for other migrant clan members within the graduate's urban household, and/or (3) supporting the urban educational costs of other villagers in future.

Education is a major cause of long term (multi-year) rural to urban displacements, and is second only to the search for employment as a migration motive. Important development concerns are raised by this sector, since educational institutions are encouraging onward migration to Kinshasa, rather than continued residence in a secondary city or return to a rural area, because of the academic, university-preparation orientation of their curricula. Dropouts from the science schools have not learned skills which would make them

industrially employable, or able to maintain rural off-farm self-employment. The only technical school in Kikwit is not addressing locally expandable employment sectors, and relies upon its attraction of Kinshasa industrial recruiters for placement of graduates who are able to find jobs. Only one secondary school (state-run) has a formal degree program in improved agricultural technologies. The educational system is missing the opportunity to capture migrants in rurally relevant training during their stay in Kikwit.

PVO financial difficulties are causing the closure of subsidized dormitories, which will result in more costly and logistically difficult access for rural migrants to these urban educational services. In the face of increasing demand for educational services, by a predominantly young, rapidly growing urban population, new schools are not being opened and existing ones, in fact, are being closed for lack of "official papers" (including six Protestant secondary schools and one primary school in Kikwit during the last few years). GOZ regulations, and financial controls are interfering with PVO initiatives designed to meet educational demand.

. Kikwit's artisan sector is providing an important type of rural-urban educational linkage by training rural youth for off-farm employment back in their villages. In the Djuma survey, discussed earlier, migrants who were able to learn an employable skill in an urban area were usually able to continue to use this skill after their return to their village. Migrants who learned commercial skills in an urban area were also able to maintain rural-urban supply links for village-based trading after their return to their rural area.

This urban service for rural development needs to be expanded through the increase of secondary city training opportunities in technical skills that migrants can use for off-farm rural employment. There is no formal artisanal training available in Kikwit. Kinshasa was found, however, to be serving as an incubator for secondary city artisans, who come to the primate city's modern-sector trade schools for training, but often move back to the less competitive market in secondary cities like Kikwit to open their own businesses after graduation. Development assistance should support the expansion of secondary cities' role in training rural youth for off-farm artisanal and technical services employment, complemented by urban supplying of inputs, parts, and equipment for these rural producers.

. Credit cooperatives link the rural and urban areas as formal sector resources used by low and moderate income groups. The

Commercial Bank of Zaïre is normally only open to high level entrepreneurs, but through an account established by the three CBZO (Communauté Baptiste du Zaïre Ouest) credit cooperatives in Kikwit, their over 5,000 members obtain the advantages of bank security, interest on deposits, and credit (up to 150% of an individual's deposits). The Kikwit urban cooperatives backstop eight affiliated rural credit cooperatives, and are part of a growing national PVO network which encourages domestic savings and capital formation in Bandundu and Bas Zaïre secondary cities. Combined with secondary city technical and artisanal training, these credit resources have substantial job creation potential, and are fostering urban stimulation of rural economic development.

One of the development concerns expressed earlier is the tendency towards increasing concentration of capital resources in the hands of a small number of high level entrepreneurs, even in a major secondary city like Kikwit. There is a need to provide more equitable access to entrepreneurial capital for a larger group of rural and urban investors, therefore this PVO credit cooperative movement is seen as an important institution to support, in order to achieve the goal of diffusing the concentration of resources more broadly, beyond a small elite group.

. Health services, especially sought through visits to the General Hospital, generate a considerable amount of the short term rural-urban displacements in Kikwit. The desire for access to health services also attracts rural elderly to retire with their urban-dwelling offspring. Kikwit's General Hospital is the major treatment facility serving all but basic health needs within a 500 km radius of influence, since the "on paper" hospital facilities in two other nearby secondary cities (Idiofa and Gungu) are not functioning.

Secondary cities like Kikwit are also attracting this large share of health-motivated visits because of the multiple economic and social transactions, aside from health care, which patients and accompanying family members can undertake during the same trip. More isolated facilities, like Musango Hospital (120 km from Kikwit on the road to Kinshasa), are not as attractive for this reason, and are therefore underutilized investments, while urban beds in Kikwit are doubly occupied. Support to the PVO sector, which finances and manages over 50% of the health sector services in Kikwit, will be needed to build up the Neighborhood Health Centers, which should be providing a much larger share of the basic urban services to free up Hospital staff for more specialized treatments.

Several development concerns will need to be addressed through larger scale secondary city programs, principally: (1) the need for remedial investments in long-neglected secondary city hospitals, such as those in Idiofa and Gungu, to provide more accessible health services to rural areas; and (2) the need for primary and preventive health training programs at secondary city facilities (like the Kikwit General Hospital) which are collecting large numbers of rural patients and family members for extended treatment programs, providing an opportunity for cost-effective training activities.

. Adequate secondary city living conditions are needed to attract well-trained educational, administrative, and health personnel for the benefit of accessible rural populations. Water and electrical systems, adequate housing, transport and communications systems are the main components which affect staff willingness to live in urban areas outside of the primate city. GOZ personnel outside of secondary cities experience many additional months of delay in receipt of their salaries, for example, which discourages acceptance of these more isolated posts. Several PVO schools, now based in Kikwit, were forced to move there from the rural locations in which they had first been opened, because they were unable to retain adequately skilled teaching staff without the amenities of a major secondary city. While providing the preconditions for urban stimulation of rural development, investments in secondary urban infrastructure will also provide the minimal level of amenities necessary to retain and attract a sufficiently skilled pool of human development resources and service providers.

. Politically motivated administrative inefficiencies have constrained Kikwit's ability to provide administrative services to its rural population. Though located at the heart of the demographic, commercial, and transportation densities in the region, Kikwit lost its designation as regional administrative capital in 1970 for political reasons. This has been a great disservice to the region's rural areas, generating considerable inefficiency and unnecessary costs in the provision of administrative services. Though temporarily causing a decline in Kikwit's population through the migration to Bandundu city of most of its public employees, this decision has been dysfunctional, and was paired with national political reluctance to accord the local counterpart funds needed to secure donor investment in Kikwit's urban systems. It is hoped that Kikwit's inclusion in the GOZ secondary cities water system feasibility study proposal to the African Development Bank signals a halt to this political policy of disinvestment. Administrative service structures should

utilize the pre-existing hierarchy of central places created by demographic, economic, and communications concentrations, if resource wastage is to be avoided and adequate service levels maintained. Zaïre can not afford administrative inefficiencies in its current economic climate.

. Social and economic activities in Kikwit are a mix of rural and urban characteristics. As a city of over 100,000 but the smallest of the functionally defined regional centers, Kikwit was predicted to be serving as a rural-urban interface. Through the consultant's household survey it was found that most Kikwit households are involved in agricultural activities, either the cultivation of fields near or far from the city, or both. There are contrasting patterns, however, in more recently developped versus older neighborhoods. In the newest areas, day-to-day economic activities ressemble village life, with both husband and wife involved fulltime in agriculture, more for auto-consumption than for sale. In the older more urban neighborhoods, less than half of the households were involved in agriculture, but for those that were, production has more of the character of commercial investment. A number of these households were employing salaried or sharecropping non-family agricultural labor on fields back in their rural areas, and a number also maintained the concurrent rural and urban residences observed in the BEAU survey in Bukavu. Strategies for family use of these residences vary. A man retired from a salaried job may supervise hired salaried agricultural labor in the village, periodically visiting his urban-based wife (who is engaged in trading) and his children (who are in urban schools). At peak periods of demand for rural labor, students return to help with their family's harvest, etc. Older central neighborhoods show more cosmopolitan patterns in shelter sector investment, with proprietors building infill rental units for migrant tenants on their compounds. The newly developing urban fringe has a more village-style settlement pattern with a single household per lot built in traditional materials. As migrants assemble resources for construction, they move out of centrally located rental units to become owner-occupants in self-built outlying housing areas.

These patterns of rural-urban linkage in social attitudes, physical presence, and investment decisions seem to be typical of secondary cities in Zaïre. It is important for planners to acknowledge the role of urban capital formation in investment in rural agricultural production, and ways in which, over the course of an individual's life cycle, his or her contribution to rural production includes both rural and urban components.

I. SUGGESTED STRATEGIES

In 1982, AID's Office of Housing and Urban Programs initiated surveys of "Indicators of Urbanization" in Africa, the Middle East, and Asia, identifying in a highly macro-economic sense those countries in each continent which are likely to be experiencing the highest rate of urban growth out to the year 2000, and prioritizing those most likely to have a shortfall in the domestic economic resources needed to cope with the rapid infrastructure and job creating investments which this accelerating urbanization will require. In comparison with the rest of sub-Saharan Africa, Zaïre was ranked as the country which had already experienced the highest level of unexpected urbanization in comparison to its economic growth. Of countries in this category, it was second only to the Central African Republic in being least likely, economically, to be able to meet these urbanization pressures with its limited domestic economic resources.

The Zaïrian situation is even more severe than is indicated in the report, since RHUDO field data collected for the Rural-Urban Profile indicate that its national population is growing faster than the report's estimate of 2.7% per year, and may, in fact be growing at 3.5% annually. The urban population of Zaïre now seems to be growing slightly slower than its earlier rate of 7.2% annually from 1970-1980. The national urban population, however, has still been growing about 6.3% per year since 1980, almost twice the rate of overall national population growth. This small deceleration of the urban growth rate seems to have been a response to overall macro-economic decline in Zaïre and ensuing urban unemployment. The country will soon reach the level predicted for 1985 at which almost 40% of the population of Zaïre will be urban-dwelling and spread over a large number of urban places.

By 1985, Zaïre is expected to have 23 secondary cities of over 100,000 persons each (not including Kinshasa), in comparison with the 14 secondary cities which had achieved this population level in Zaïre in 1980, and two other centers which were within 5,000 persons of that status. Most analysts have under-estimated the large number of secondary cities already existing in Zaïre[1]. In Africa, only Nigeria exceeded this

1. For example, Dennis Rondinelli stated that there were only nine secondary cities of over 100,000 population in Zaire in 1980 in his paper, "The Potential of Secondary Cities in Facilitating Deconcentrated Urbanization in Africa", an AID-funded research paper for the Regional and Rural Development Division, Science and Technology Bureau, which was to be published in African Urban Studies in 1983

number of secondary cities in 1980, and Egypt had an equal number with that of Zaïre. These Zaïrian secondary cities contained 3,523,322 people in 1980, the fourth largest national secondary cities' population in Africa (behind Nigeria, Egypt, and Morocco in that order), including almost a third more urban dwellers than were living in the capital (Kinshasa's population was estimated as 2,590,000 in 1980).

This situation is particularly frightening in view of the relative lack of donor support in Zaïre for the development of local institutional capacity for monitoring urban growth and planning for the development of infrastructure in the Zaïrian secondary cities. In light of Zaïre's other seemingly overwhelming economic and political priorities, this lack of attention to the growing urban sector is understandable. However, the shift from a more rural to a predominantly urban-based population in the next 15 years requires some serious reconsideration of national and donor development strategies in order to minimize possible political disruption and maximize potential economic growth opportunities. To redirect development strategies, it will be essential to put in place dependable mechanisms for data collection, analysis, and planning at the national, regional, and local levels.

1. Development of an Integrated Secondary City Pilot Investment Project: Infrastructure and Job Creation Through Training and Credit in Kikwit

   Though Zaïre is endowed with a well-distributed hierarchy of large and small secondary cities and market towns, these urban places have suffered almost complete capital disinvestment since Independence, which has constrained their ability to stimulate rural development. USAID has the opportunity, however, to build upon the framework of existing rural-urban linkages which was described in Kikwit, particularly through:

   a. Increasing the productivity and outreach of secondary cities' water, power, and transport systems, which are key factors in the urban-based collection, transport, transformation, and marketing of rural production, and in urban provisioning of rural areas in imports and domestic manufactured goods. Though investments in rural feeder roads are important in rural-urban linkage, a focus on the river and rail systems might be a more cost-effective way to maximize the efficiency and equity of Zaïrian secondary cities' services to rural areas.

b. Strengthening of secondary cities' role in urban and rural employment generation through assistance to PVO activities in technical education, and credit.

c. Establishing urban-based agricultural and reforestation demonstration programs which will capitalize on secondary cities' role in exporting innovation to rural areas, a role which has been reinforced by accelerating reverse (urban to rural) migration during the current economic crisis.

As the central urban place in Bandundu Region, Kikwit is located at the core of USAID's geographic target area, and is nationally visible because of its location on the densest national axis of urbanization. The opportunities presented by Kikwit's concentration of PVO development project headquarters, complemented recently by African Development Bank and German bilateral aid interest, combine to designate Kikwit as the most promising site for a USAID secondary city pilot project. USAID could complement other donor and lender contributions, in a combined effort which would focus on urban and rural off-farm employment generation and the urban stimulation of rural development. The second half of the profile assesses Kikwit's existing development functions, opportunities, and constraints in detail, and offers guidance for specific project proposals.

In addition to this Kikwit pilot project approach, the national secondary city development strategy should strengthen the key Zaïrian planning institutions which are responsible for anticipating needs which will be created by the country's rapid urban population growth, which will be spread over a large number of urban areas. The second set of recommendations, therefore, is aimed at providing better regularly monitored data on urban trends and conditions, and increased analytical and planning capacity, in the context of the need for decentralized urban investment planning. These investments will be crucial if the USAID goal of stimulating rural social and economic development is to be achieved.

2. The Development of National Urban Planning Capability with a Focus on Secondary Cities

Though this profile was not expected to generate in-depth project proposals, there has been a general indication from both the RHUDO and USAID Kinshasa that projects which would reinforce national and regional institutions'

capacity to assess and upgrade secondary cities' stimulation of rural development could be considered for funding.

Based upon macro-economic conditions in Zaïre, there has been a focus upon activities which can be grant-funded. Though currently available grant funds are limited, some preliminary activities could be initiated with a relatively small level of resources and could be used to generate more comprehensive project proposals for future budget submissions. The project recommendations which follow have emerged from the effort to identify limited-scope grant activities, and therefore they focus on training, institution-building, urban planning and monitoring activities.

Emerging from the national level Rural-Urban Profile are several categories of concern which could be addressed by the development of RHUDO/USAID Zaïre collaborative projects:

a. Improvement of national level urban and regional data collection, analysis, investment planning, and project coordination through support to one or more of the following institutions:

   (1) BEAU (Bureau d'Etudes d'Aménagements Urbains)

   (2) GEEP (Groupe d'Etudes Economie et Planification)
   (3) IRES (Institut de Recherches Economiques et Sociales)
   (4) CEPAS (Centre d'Etudes pour l'Action Sociale)
   (5) INS (Institut National de la Statistique)
   (6) Divisions Régionales du Plan, Commissariat Général au Plan

b. Development of data bases and project plans for secondary cities through support for decentralized collaborative studies by at least two of these institutions - BEAU and the Regional Divisions of the Commissariat Général au Plan, including inter-ministerial participation at the sub-regional and local governmental levels.

   The few Zaïrian institutions which have an overall urban analysis capability (BEAU, INS, GEEP, IRES) are handicapped by their lack of financial resources which

would permit even minimal field survey work. Their offices (with the exception of BEAU) are centralized in Kinshasa, isolating them from the performance of secondary city planning. Currently only limited donor technical assistance is being provided to BEAU, and even this is only for a few Kinshasa infrastructure projects which are now being prepared through UNDP. Earlier Belgian assistance to the BEAU for secondary city socio-economic surveys ended in 1976, after producing documentation only on Bukavu, Kisangani, Kolwezi, and Lubumbashi. Fortunately, the UNFPA is assisting with the current national census effort, which will contribute key data for updating demographic trends in Zaïre, since INS has not been able to produce national administrative census data on a timely or regular basis, because of its limited resources. Against considerable odds, the INS was able to complete 1973 socio-economic surveys in Kananga, Lubumbashi, and Kisangani but only the Kananga work has actually been published through IDRC (Canadian) funding assistance. No funding for more recent socio-economic or physical infrastructure studies of secondary cities has been available to either BEAU or INS.

The Banana-Moanda planning effort is a prime example of the inappropriate use of the limited GOZ funding for urban planning outside of Kinshasa. Currently, GOZ resources for urban planning are being channeled mainly towards the Banana-Moanda deep water port and industrial development project for the ZOFI (duty free Inga development zone) in Bas Zaïre, a project which will generate relatively little employment, since the aluminium and phosphate extraction industries proposed for that site are capital (not labor) intensive. The ZOFI complex turns its back on most of the urban growth in Zaïre, since production is export-oriented and minimally value-adding, and the project may, in fact, increase unemployment in the existing secondary port cities of Boma and Matadi from which it would eventually take away many port functions, if implemented. Ambitious urban infrastructure construction plans have been prepared for Moanda (currently a village), since it is intended to serve as the residential area for the Banana port and factory complex, while existing secondary cities are being ignored. In the remainder of this chapter, each of the target institutions will be described briefly, along with preliminary suggestions for USAID and RHUDO consideration.

c. Recommendations for institution-building activities:

(1) Support to the Bureau d'Etudes d'Aménagements Urbains (BEAU) for staff training, secondary city research and planning studies, and publications.

(a) A phased program of short and long term staff training for BEAU staff through in-country in-service workshops which could draw upon some of the USIS Ampart funds to bring in short term trainers from U.S. universities (in regional transportation planning for example) and through limited placement in U.S. universities. Specific training activities might be integrated into project funding in support of secondary city strategy development.

BEAU's staff includes engineers, topographers, architects, geographers, economists, and one sociologist, for a total of 17 professionals, who are assisted by ten urban technicians and 15 draftsmen. Overall coordination is provided by the Zaïrian director and two expatriate technical assistants, who are supplemented by three additional UNCHS expatriate assistants assigned to the three year ('81-'84) Kinshasa upgrading project. All of the professional staff have university bachelor's degrees, mainly from the University of Zaïre, and about four have received master's degree level training in France, and/or have participated in World Bank or UN external short courses for several months. The urban technicians are given in-service training at BEAU. BEAU has two regional sub-offices with six staff in Kisangani, and eight in Lubumbashi, though only three trained professionals are included in this number. Because of the lack of travel funds, these sub-offices function almost completely autonomously, and work mainly on specific local public infrastructure projects.

One of BEAU's greatest institutional strengths is its significant number of well-trained and motivated Zaïrian division

heads. Its weakness, in the past as well as present, has been its reliance, at the top levels of research coordination, on expatriate technical assistance and its lack of field research and publication funds.

As the only local organization with a national urban planning capability, BEAU is a critical institution for USAID Zaïre and the RHUDO/WA to support.

(b) Based on preliminary reactions from the USAID and RHUDO to issues raised in this report, a specific research agenda could be defined as a basis for support to BEAU, and coordinated with institution-building activities at IRES, INS, and GEEP. Issues of central concern to the BEAU Director of Studies, are:

(i) The need to build an adequate system of land title statistics, train local "cadastre" offices in its use, and enforce its implementation in urban centers;

(ii) The need for a regularly monitored household sample survey in representative secondary cities, to keep track of socio-economic trends outside of Kinshasa;

(iii) The importance of expanding decentralized economic planning capability, through a program of site-specific collaborative studies jointly conducted by BEAU and the Regional Divisions of the Commissariat au Plan. Secondary cities proposed as priorities for decentralized studies, because of the growth which they are expected to realize in the near future are:

Kananga (in which BEAU would like to establish a sub-office because of its demographic importance)

Gemena

Kalemie
Kamina
Tshikapa
Dilolo
Ilebo
Bunia

Though BEAU is the key institution responsible for nation-wide urban planning, it is a sub-unit of the Département des Travaux Publics et de l'Aménagement du Territoire. Since very little travel funding is available in its own budget, BEAU activities are currently limited to responding to specific ministerial requests, and it has not had the resources to pursue its own broader project agenda.

(c) Publication of the BEAU's workbook on secondary cities, "Aménagement du Territoire: Analyses Préliminaires et Orientations".

The most comprehensive collection of data on national secondary cities, available from any source in Zaïre, is the regional planning workbook compiled by BEAU entitled, "Aménagement du Territoire: Analyses Préliminaires et Orientations", June 1982, which has been cited particularly in the section of this report on urban functions. This unpublished document is mainly a scrap book of data on transportation, urban population growth (drawing mainly upon the work of Saint Moulin), and national physical characteristics (e.g. climate, agricultural production, mineral resources, etc.), most of which has been xeroxed from other sources, and which would need considerable reworking before publication. Though much of the substance of the document has already been incorporated in this RHUDO report, it offers additional detail, in some areas, and deserves to be published if funds could be made available by USAID, particularly since it is in French, and could be used by local agencies. It provides a concrete demon-

stration of BEAU's comprehensive physical development orientation, though social data analysis and social planning is not really part of BEAU's mandate or perspective, and inter-urban exchanges have never really been studied by the organization.

(2) Development of a collaborative institutional relationship with GEEP, particularly if USAID Zaïre continues to prioritize transport infrastructure development in its project designs. GEEP is the key institution responsible for coordinating national transport studies and advising the Presidency on transport policy. Until the RHUDO mission, USAID contact with GEEP had not been initiated. A major determinant of the ability of secondary cities to perform their rural development functions, especially the marketing of agricultural production and the supplying of key production inputs and consumer goods to rural areas, is the effectiveness of the inter-urban transport system. Transport functions in Zaïre are divided among a fragmented set of parastatals and separate ministries, principally:

ONATRA (Parastatal for river ports and freight exploitation)

RVF (Government agency responsible for maintaining the fluvial navigational channels)

RVM (Agency which maintains maritime shipping channels)

Office des Routes (Road maintenance and construction, and ferry operation)

SNCZ (Parastatal operating the major domestic rail lines)

CMZ (Government owned merchant shipping fleet)

Air Zaïre (National flag carrier)

Aviation Department (Operation and development of airports).

Because of this fragmentation, transport data is time-consuming to collect, and overall system-wide planning was non-existent until the recently organized ECA transport roundtable of June 1983. BEAU is handicapped, as an impartial system-wide advocate, by its close affiliation with the Office des Routes, since they are located within the same ministry (Travaux Publics et Aménagement du Territoire). GEEP, however, is serving rather effectively as a clearing-house for most transport data, (with the important exception of the Office des Routes which is not located in the Ministry of Transport). With a staff of 17 professionals, including 13 Zaïrians and four expatriates, GEEP is responsible for coordinating the national transport budget; conducting economic studies; undertaking national transport planning and program development; and resolving legal and administrative transport problems.

GEEP is serving as the contracting and coordinating mechanism for an imminent study of private sector transport in Zaïre, financed by the World Bank, and bids on the terms of reference from private consulting firms had just been solicited by GEEP in October 1983. The study will cover road, air, and river transport, providing the first data on private transport ever to be collected on a national scale in Zaïre. GEEP's current work agenda also includes in-house studies on the implementation of the national investment plan (Plan Mobutu); studies on transport policies; follow-up to the ECA Roundtable with the elaboration of the National Transport Investment Budget, the monitoring of the improvements to National Road No. 1, and the programming of long term reorientation of export transport towards the National Route. GEEP is also currently reviewing its own role within the planning process in Zaïre.

With USAID's emerging interest in upgrading transport infrastructure and supporting produce marketing, it is an opportune time for expansion beyond involvement with the Office des Routes into an institution - building relationship with GEEP. A detailed program of short and long term GEEP staff training in capital budgeting,

transportation planning, and support for specific decentralized area and intermodal studies could be formulated, and could include funding for the regular monitoring and publication of key transport statistics. In the long run, to effectively accomplish its mandate, GEEP staff size will need to be expanded significantly. GEEP's candidacy for USAID support is enhanced by its professionally well-informed and dedicated Zaïrian leadership.

(3) Support to IRES in a pilot effect to monitor urban indicators. A third institution, which deserves to be cultivated as a national planning and data monitoring resource, particularly in the socio-economic domain (in which BEAU is weak) is IRES, an arm of the Economics Department of the University of Zaïre (Kinshasa), which has impressively succeeded in publishing the Cahiers Economiques et Sociaux journal for several decades, in spite of increasing budgetary constraints. This well-written academic journal is the major outlet for in-depth socio-economic research in Zaïre. IRES also publishes the "Indice des Prix" (Price Index), which is its major source of revenue, aside from limited GOZ support. Since 1972, other outside funding has ceased, though before then, the Ford and Rockefeller Foundations and Belgian bilateral sources had provided financial assistance. Occasionally special editions of the Cahiers Economiques et Sociaux have been funded by institutions such as the Banque du Peuple, Bureau de la Présidence de la République, SOZACOM (the parastatal which markets GECAMINES copper), the French Embassy, and IDRC (Canadian Research Institute).

The IRES directors are extremely well-trained economists, with an impressive overview of socio-economic planning issues, regional equity concerns, available data sources, and statistical problems in Zaïre, and they are frequently used as advisors by the Commissariat au Plan. IRES is primarily handicapped by its lack of research and publications funds. As the first follow-up activity to the RUP, RHUDO financial support is being provided for an IRES pilot effort which would test RHUDO's regional statistical format

for monitoring "urban indicators": population growth, secondary city living conditions, and rural-urban linkage. This will be the test case for the regular monitoring of indices of urbanization in other countries throughout the region. IRES has also proposed several other statistical projects for USAID consideration, including:

(a) An IRES training effort to strengthen INS and its regional sub-units (Bandundu, Equateur, Kivu, Shaba, and Kasai Occidental). During a recent UNDP/TCDC mission in Zaïre, interest was expressed in this project, but no definite commitments have been made;

(b) Expansion of full time IRES staff so that a broader range of planning statistics can be published on a regular basis, including economic projections.

(c) A semi-annual new publication which would include regularly updated national and regional development indicators, an inventory of available national sources for development statistics, and a special bibliography of recent sectoral studies commissioned within Zaïre.

(4) Support to CEPAS as a clearinghouse for information exchange, needs assessment, and training for national PVO activities especially in the urban shelter and employment generation sectors. A fourth institution, deserving of consideration for project support, is CEPAS, which has four major current activities of interest, especially in the context of USAID's imminent $5 million PVO assistance program, though which ORT (Organization for Rehabilitation through Training) has been designated as the conduit for grants to local PVO's for rural roads and health services projects, and a pilot hydroelectric experiment on a site in northeast Zaïre. CEPAS has the capacity for developing a useful PVO information service, as the basis for a national and regional network of project collaboration and technical resource exchange. During the RHUDO mission, it was discovered that

CEPAS had compiled the most complete inventory of current PVO projects in Zaïre, organized by geographic sub-region under the following activity sectors:

- Integrated development and community action;
- Agriculture, livestock, and fish projects;
- Health programs;
- Housing;
- Infrastructure (roads, water, markets, electrification, erosion control).

CEPAS is currently soliciting funds to aid in the publication of this useful inventory and its distribution. As the Zaïrian base for the INADES correspondence courses, which are used for the training of rural development workers, CEPAS is a major PVO training resource, and has collaborated in attitudinal surveys of rural-urban migrants in the past. Its publication of "Zaïre-Afrique" journal for many years has provided an important forum for research and commentary on social and economic change in Zaïre, and frequently contains urban case material. CEPAS also serves as a resource on appropriate technology for PVO projects in the country, since it monitors external developments in this field, and has published some inventories of Zaïrian pilot projects.

It is recommended that USAID provide support to CEPAS for:

(a) The publication, distribution, and regular updating of its annotated index of PVO development projects;

(b) In collaboration with BEAU, identification of the technical and financial training needed by secondary city-focussed PVO's working in the shelter sector (water, hydroelectricity, other infrastructure, and housing), and in urban employment generation (agriculture projects for migrants, modern artisanal trade schools);

(c) Organization of training events, a network of information exchange, and project site visits for PVO's working in these two key urban theme areas.

(5) Collaboration with other donors to support the computerization of demographic statistical analysis at INS, focussed upon the annual administrative censuses, and the upcoming national census. Reasonably timely reporting and publication of demographic statistics is crucial to all aspects of national development planning, particularly the monitoring of rapid urban growth. As the major GOZ institution mandated to analyze and report demographic data, INS is virtually crippled by its lack of in-house computer hardware and staff trained in its use. All INS regional and national compilations of administrative censuses (the only annually collected source of demographic data) are done manually. Compounded by the delays in local and regional level census collection and transmittal of the findings, this effectively limits demographic data available to national planners and donors in Kinshasa to extremely outdated and incomplete figures. During the fall 1983 RHUDO mission, INS was six years behind schedule in compiling complete regional census figures; 1977 was the most recent date for which all regional data had been received and aggregated.

(a) Institutionalization of an annual conference of Zaïrian producers and users of demographic statistics to develop improved methods of data collection, reporting, and analysis.

(b) Collaboration with in-service training of INS statisticians. Discussions are underway on the training needed by INS and other statistical services in Zaïrian ministries. A September 1983 proposal was drafted by the INS Direction des Services Généraux for the establishment of a National Training Center in Statistics and Applied Economics (CFSEA) at the Commercial Institute (Institut Supérieur de Commerce) in Kinshasa. In-service training for INS personnel, of about six months duration, would be one of

the services offered. INS is currently soliciting donor interest in furnishing teaching equipment and personnel.

(c) Consideration of participation in a program of external training for INS staff. The same division of INS has also been involved in discussions, for over a year, with the UNECA (Economic Commission for Africa) on an even broader program of external training for Zaïrian statisticians. Subjects discussed have included in-country courses which would more adequately prepare Zaïrian candidates for the competitive entry exams required for study at existing external statistical training centers (Paris, Kigali, Abidjan, Yaoundé). Exchange visits have been proposed which would introduce Zaïrian statisticians to other African countries' programs which have more experience in integrating statistical data into national planning (Cameroun, Ivory Coast, Senegal, Morocco). Fellowships for U.S. demographic training could be considered, if the language barrier could be surmounted, and if coordinated in-country institutional development would concurrently prepare INS to use these graduates effectively after their return to Zaïre.

(6) Support to the Divisons Régionales of the Commissariat au Plan, initially through production of a plan for economic development and employment generation for Bandundu Region, with an integrated program of rural and urban investments. The Commissariat au Plan, responsible for all national economic planning, is the first Zaïrian ministry to implement decentralization of initiative and decision-making authority. Branch offices have already been operating for about two years in five of the country's regions (Shaba, Kasai Occidental, Bandundu, Equateur, and the Kivu). During 1984, two more regional offices will be created (Kasai Oriental and Haut Zaïre) with the last two offices programmed for 1985 establishment (Bas Zaïre and a Kinshasa-focussed office which will separate local planning from the national coordinating functions of the central secretariat).

Each regional office is staffed by a multi-disciplinary working group, including an average of ten university-trained professionals, among whom are economists, sociologists, agricultural engineers, and animal scientists. Since the regional offices are expected to survey local development needs as a basis for proposing GOZ and donor investments, and to produce regular publications of regional statistics as well as special locally relevant studies, their equipment includes a four-wheel drive vehicle and reproduction facilities for each office.

Their mandate includes:

- Establishment of regional development programs;
- Coordination of regional development actions;
- Monitoring of economic production;
- Advisory functions for regional government and the central Commissariat au Plan.

The central office expects to limit its role to coordination and review of these regionally generated development strategies, and political orientation of regional activities. During the first year of its operation each of the existing regional offices has focussed upon the production of a basic document which includes:

- A survey of regional services and economic potential;
- A statement of needs and recommended priorities.

These documents are submitted to the governor and to the "Comité de Conjoncture Economique" for review. As follow-up, locally requested special studies are to be defined for the regional office's work program.

The Equateur office, for example, produced a special study of food availability in Mbandaka, the regional capital, which combined an assessment of marketable rural food surpluses; systems of rural collection and transport to the urban market; availability of credit for

operating and capital investment in these activities; urban food deficits, prices and consumer budget limitations. On the basis of this study, an action strategy is being developed which will include interventions in health/nutrition training, agricultural production, a return to alternative energy fuel sources for river transport and decentralized industrialization, reconsideration of government salary policies, and employment-generating sectoral investments. This is an excellent example of the sort of integrated economic development planning approach which should be encouraged at the regional level, in order to maximize the positive stimulation of rural economies through rural-urban linkage.

(a) Since the Regional Divisions are given considerable autonomy, and they are the major reservoir of skilled multi-disciplinary manpower available for planning at the decentralized level, the opportunity should be seized to encourage their initiatives early-on through selected technical assistance and equipment purchases, and funding for field surveys and publications, especially through a pilot project in Bandundu Region. USAID provided some initial assistance , on the national level, for the establishment of these Divisions, but it is important at this time, now that the first offices have been established, to follow up earlier efforts with specific project collaboration. The Bandundu Division Régionale du Plan is in need of:

(i) In-service training, including study missions to other African countries which have had successful experiments in decentralized economic planning;

(ii) Support for Kikwit-based workshops in data collection, analysis, programming and evaluation of projects. Kikwit is a more central location than Bandundu city, for bringing together regional planners, Kinshasa resource people, and

regional commercial interests. This experiment could also stimulate local government participation in programming local revenue collection and investments. The Regional Plan Division would coordinate participation from:

Kinshasa resources

- Commissariat au Plan - Division d'Etudes Régionales, Division Appui Technique et Contrôle du Programme, Division de Promotion Rurale;
- Bureau d'Etudes d'Aménagement du Territoire;
- Bureau d'Etudes de Décentralisation;
- Institut de Recherche Economique et Sociale (IRES);

Kikwit Ministries

- Agriculture et Développement Rural - Affaires Sociales;
- Economie;
- ANEZA (Chamber of Commerce);
- Banque Commerciale du Zaïre;
- UNTZA (National Labor Union);
- Kikwit PVO's and development organizations;

An opportunity for collaboration with the World Bank exists, since Bank missions are considering a Kivu and/or Bandundu focus for selected support to the Plan's Regional Divisions.

(b) Support for in-service training for all Regional Divisions in statistical data collection and analysis. Two of the

periodic publications which are being produced by the Regional Plan Divisions are the major sources of regular local economic performance data, which will be a key input into USAID and RHUDO monitoring of urbanization. They include the "Regional Economic Synthesis" (to be updated each trimester) and the "Regional Technical Reports", which assess sectoral economic performance on an annual basis. These regional data are then computerized in Kinshasa as the basis for national economic planning. The Regional Divisions have begun issuing these reports, though less frequently than had been hoped. This will be a critical time to reassess data handling and reporting methods, and upgrade staff skills.

In conclusion, a number of institution-building strategies have been suggested for USAID and RHUDO consideration. Grants to one or more of these Zaïrian organizations, and parallel organizations in other countries in the RHUDO regional service area, for these types of activities could form the nucleus of a regularly administered RHUDO grant budget. If criteria for such a grant program can be defined as an outgrowth of these types of project suggestions, the RHUDO could invite the annual submission of competitive grant proposals. If this activity would be of interest, the RHUDO might consider creating a regional advisory panel of local urban planning experts, to participate in grant proposal review and selection.

ANNEXES

I. REGIONAL ECONOMIC INEQUITIES IN DEVELOPMENT AND ITS RELATIONSHIP TO URBANIZATION IN ZAIRE

For this analysis of regional equity in development, the author has been forced to rely mainly upon data provided by the Bank of Zaïre and the Department of the National Economy, for the 1957-70 regional shares of GDP, as interpreted by Léon De Saint Moulin[1], since more recent regional GDP figures are not available. From 1957-70, overall GDP increased by 60%, mainly in the mining and metallurgy, construction, and public services sectors, while agriculture remained stationary. Therefore, the mining and urban services sectors increased their relative shares of GDP, and metallurgy (copper and cobalt processing) contributed more than all other industries and construction put together. Regional inequities were extreme, with Shaba (36%) and Kinshasa (17%) together accounting for over 50% of national GDP in 1970. Each of the other regions varied between 5%-8% of GDP in their production, and even this production was not uniformly spread over all economic sectors. Bas Zaïre showed the most diverse and evenly developed economy (28% agriculture, 29% secondary sector production including industry and Inga Dam, 43% public and financial services). Equateur, Bandundu, and Haut Zaïre remained primarily agricultural, with almost half of their respective GDP contributions within this sector, and each had very little industry (no more than 5% of each region's GDP). About half of their GDP came from the tertiary service sector.

The Kivu showed a similar pattern, but with more mining development and a consequently more modest agricultural share of primary production. The Kasais, having limited primary resources, drew about 25% of their shares of GDP from agriculture and 45% and 63% from the tertiary sector in Kasai Oriental and Occidental respectively, concentrated in urban educational and medical services. The difference between their economic structures was attributable to the Kasai Oriental diamond mines near Mbuji-Mayi, which resulted in 31% of 1970 GDP coming from mining in that region, while only 7% was from mining in Kasai Occidental.

In contrast, agriculture played a very small role in Shaba GDP. This is a highly urbanized region, with thin population densities in the rural areas, thus mining and metallurgy comprised 58% of GDP, and tertiary services were a more moderate (28%) share than in the less developed regions, while agriculture and other industries and construction only accounted for 13% of production. Of all regions, only in Shaba did the tertiary sector not increase its share of GDP

1. De Saint Moulin, Léon "Les Villes et le Développement Economique du Zaïre, from Planification et Développement Economique au Zaïre (Jens Breitengross ed.), Deutsches Institut fur Afrika-Forschung, Hamburg 1974, pp. 64-74.

from 1957-70. In Kinshasa, the tertiary service sector was predominant, contributing 71% of the capital's share of GDP, even though 42% of industrial value added nation-wide by manufacturing was concentrated in the city. This indicates that industry had not been very highly developed, even in the capital.

Saint Moulin's table of "Accroissements des Diverses Contributions au P.I.B. (GDP) Par Région et Secteur d'Activité 1957-1970" (see Table 7) shows the clear advantage that Kinshasa and Shaba have enjoyed, generated mainly by public investments in Bas Zaïre (Inga) and Shaba mines, and the growth of tertiary services in Kinshasa. Urban development in the Kasais has also generated considerable tertiary sector growth, compensating somewhat for their secondary and primary production stagnation. In contrast, the remaining three regions (Equateur, Haut Zaïre, and Kivu) have experienced much slower growth. Their secondary (industrial and construction) sectors were still almost non-existent in 1970, their primary sectors (mainly agriculture) were declining, and overall GDP growth in each region was not keeping pace with population increase.

Overall, 98% of primary and secondary production was confined to Shaba and Kinshasa in 1970, and development since 1957 had shown an increase in the earlier relative regional disparities. Specifically, Kinshasa and Shaba increased their share of GDP from 57% in 1957 to 68% in 1970. The Kasais maintained a stable share of about 10% of GDP over this period, while production shares of the three other regions declined (from 12% to 8% in Haut Zaïre, for example).
In Equateur, poor soils and underdeveloped communication infrastructure were causal factors, while the East and North-East have been particularly handicapped by socio-economic and political disruption.

In the opinion of Saint Moulin, the large cities in Zaïre are better linked with each other than with their immediate hinterlands - in essence, he felt that long distances have been more easily surmounted than short ones. His analysis of the 1970 census shows that per capita regional GDP inequities were even more extreme if relative population shares are taken into account. With only 20% of the national population, Shaba and Kinshasa accounted for 68% of GDP (Z140 per person, versus Z50 average national per capita GDP). A detailed analysis shows the even more disadvantaged status of some regions - GDP per capita was under Z30 in Equateur, Kasai Occidental, Haut Zaïre, Bandundu, and Kivu.

TABLE 7

INCREASE IN GDP CONTRIBUTIONS BY REGION AND BY SECTOR OF ACTIVITY, 1957-70

Regions	Primary and Secondary Sector	Tertiary Sector	All Three Sectors' Total
Kinshasa, Bas-Zaïre and Bandundu	+ 50.1%	+130.6%	+ 89.5%
Equateur	- 0.3%	+ 85.8%	+ 28.3%
Haut-Zaïre	- 18.5%	+ 37.5%	+ 3.2%
Kivu	- 7.1%	+ 48.4%	+ 14.3%
Shaba	+101.4%	+ 49.7%	+ 83.9%
Kasai Oriental et Occidental	+ 6.2%	+154.4%	+ 54.3%
TOTAL	+ 43.2%	+ 87.0%	+ 60.2%

Source: Saint Moulin, Léon de," Les Villes et le Développement Economique du Zaïre", op. cit., p. 69.

The relationship between urbanization and economic growth shown by the above data for Zaïre, is not conclusive. It seems that a high level of urbanization is a necessary condition for regional economic development, since most of the economic production measured by GDP is located in urban areas. For example, the non-agricultural (mostly urban) share of GDP was 81% in '75, and had only declined to 68% by 1981. Though there was a strong correlation between level of urbanization and share of GDP, by region, in Saint Moulin's data, there was not a positive correlation between rate of urban population growth and rate of GDP growth. Rapid rural-urban migration was outstripping the rate at which urban growth could be converted into increased urban economic productivity.

One argument often advanced in support of concentrating infrastructure investments in the largest cities is that the greatest economic returns on investment can be achieved through the greater efficiency possible in central places, since they combine the presence of a critical mass of labor and consumers, and cost reductions produced by the synergistic complementarity of other nearby industries. Though Kinshasa absorbed 24% of public expenditures in 1970, Saint Moulin felt that the city "paid for itself" by generating 19.5% of government revenues, and 17% of GDP. In order to stimulate rural economic development, as shown in regional shares of GDP performance, a wider more equitable distribution of public investments will be necessary.

The concerns which were raised at that time of this 1970 analysis are still relevant, namely - 1) to reinforce the network of inter-urban linkages so that interior urban centers can actualize their potential productivity, and (2) to expand urban-rural linkages to avoid isolating cities as islands surrounded by noncash rural economies. Saint Moulin's fears about urban-rural linkage are still very much the issue today.

Assuming that all GDP from agriculture, by region, accrued to rural populations, as well as 15% of GDP generated by other activities, Saint Moulin estimated that urban per capita GDP was at least ten times higher than rural per capita GDP in all regions. If one accepts his assumptions, this would still be the case today, or even more extreme disparities might exist, since growth in agriculture has not kept pace with the natural increase of rural populations. Aside from increasing agricultural productivity (and cash sales realized by producers), only through increasing urban to rural flows of services and employment (above the 15% share postulated) can this urban/rural GDP inequity be reduced.

Relatively little macro-economic data by region is available to use in updating this 1957-70 assessment of regional income disparities and economic diversification. Several tables from the Bank of Zaïre 1981 Annual Report do provide some surrogate measures, though GDP by region is not explicitly provided. For example, a review of consumption of electricity by region (an indicator of level of industrialization, urbanization, and standard of living) from 1975-1981 shows that Shaba was the largest user of electricity, with Kinshasa-Bas Zaïre-Bandundu (especially Kinshasa) in second place (see Table 8). Haut Zaïre, Kivu and the Kasai(s), in fact, show sharp declines in 1981 from their 1980 levels of electricity useage, implying urban economic decline and reduction in industrial activity. This is most striking in the Kasai(s), where 1981 electricity useage was only 16% of the 1980 level. Kinshasa used approximately 25% as much electricity as Shaba, and both areas have shown fairly consistent increases over the period. If one discounts the influence of Kinshasa, rates of electrical consumption in Bas Zaïre and Bandundu are at least double the consumption of other regions (except Shaba), indicating that industrialization and the level of urban economic production has progressed faster in these areas through their proximity to Kinshasa and the maritime ports.

Salaried remuneration by region, another surrogate measure for regional GDP, as reported for 1975-1981 by the Bank of Zaïre, indicates that regional shares have remained fairly constant, led in 1981 by Kinshasa (40%) and Shaba (24%), with other provinces having much lower shares (0.5% - 8.5%). Kasai Occidental has consistently had the lowest share (0.5%) with Bandundu not far ahead (1.8%). Kivu's share of the salary budget has declined noticably over the period (from 12.5% to 8.5%) and along with a smaller recession in Haut Zaïre, this shows the effects of urban and regional economic dislocation caused by the Ugandan disturbances, and ensuing disruption of transport to the East African ports. There has been some growth in Equateur, since its share of salaries doubled over 1975 levels, and this trend may continue if PLZ and other palm plantation enterprises implement their plans to move to that region. Small growth in Kasai Occidental has also occurred. (See Table 9).

TABLE 8

CONSUMPTION OF ELECTRICITY BY REGION, 1975-81

(in thousands of MWh)

	1975	1976	1977	1978	1979	1980	1981
Kinshasa, Bas-Zaïre and Bandundu	759	757	777	807	893	866	889
City of Kinshasa (alone)	606	614	612	639	694	653	732
Haut-Zaïre	84	80	82	78	86	85	41
Kivu	64	73	73	75	62	61	25
Kasai Oriental and Occidental	68	55	54	75	80	97	16
Equateur	14	13	13	13	12	10	14
Shaba	2.736	2.722	2.716	2.476	2.510	2.769	2.894
TOTAL	3.725	3.700	3.715	3.524	3.643	3.888	3.879

Source: Bank of Zaïre according to the data of the Department of Energy

TABLE 9

DISTRIBUTION OF SALARIED REMUNERATION (ENTERPRISES)
BY REGION, 1975-81

(in percentage)

Regions	1975	1976	1977	1978	1979	1980	1981
Kinshasa	39.5	38.7	40.2	40.7	40.7	40.1	40.0
Bas-Zaïre	4.8	5.2	5.8	6.1	6.1	5.7	6.0
Bandundu	1.8	1.7	1.5	1.8	1.8	1.7	1.8
Equateur	4.3	3.5	3.9	3.9	3.8	8.4	8.3
Haut-Zaïre	7.9	8.1	7.2	6.4	6.2	6.9	6.9
Kivu	12.5	12.9	12.4	12.4	13.3	9.4	8.5
Shaba	26.9	27.3	26.6	26.2	25.7	24.1	24.2
Kasai Oriental	1.7	1.8	1.9	2.0	1.9	3.2	3.8
Kasai Occidental	0.6	0.6	0.5	0.5	0.5	0.5	0.5
TOTAL	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Bank of Zaïre (Economic Surveys)

II. RECENT PUBLIC INVESTMENT PROGRAM AND PERFORMANCE

From 1975 to 1978, Zaïre's GDP showed an average annual regression rate of 2%, dropping a further 6.3% in 1978. In 1979 the GOZ responded with a three-pronged economic recovery program including reorganization of management, economic and financial stabilization, and rehabilitation of production. The latter rests upon a three-year public investment program, designed in 1979 through World Bank support, including institutional reforms and prioritization of key imports. Little progress has been made in implementing this investment program, which is summarized in the government's "Plan Mobutu" (1981), "Fiches des Projets" (1979), and which is partially covered by the 1981 Capital Budget document (incomplete and very difficult to disentangle). Some projects are, however, showing results (Inga Dam and power line to Shaba, and some Bandundu and Kivu sections of National Road No. 1 upgrading).

The investment program covers six sectors: agriculture, industry, transport, energy, education, and health. A review of the program shows the largest share, over one-third of all resources, being channeled into the mining sector (Zaïre's traditional foreign exchange earner), with transport in second priority, drawing one-fifth of funding projected. Energy follows close behind, with 16% of the budget, and agriculture has been assigned fourth place, giving some substance to the President's speeches favoring rural and agricultural development as a national priority, with 13.7%. The remaining two sectors are funded at comparatively low levels, with only 3.2% assigned to education (mainly University facilities for Kinshasa and Lubumbashi, and lesser amounts for Kisangani), and health receiving a token 1.4%. The public investment program includes direct and parastatal expenditures, as well as seeking major amounts of donor funding, for a total of 3.3 billion Zaïres. Of this investment program, the GOZ has committed 23%, and 28% is expected to be self-financing, leaving 49% that must be raised through external borrowing. The actual rate of Mobutu Plan financial implementation for '79-'81 was only 40%, therefore the 1981-83 investment program basically carries over former commitments. The plan aims to rehabilitate existing enterprises and to support the mining and farming sectors with transport and energy development.

Though the Zaïrian economy showed some recovery in '79-'81, all four major economic indicators (production, foreign trade, government revenues, and prices) showed a 1982 stagnation or recession. The foreign trade deficit increased as a result of a decline in exports while 1981 import levels were maintained. Government revenues increased by only 18% versus a 237% increase in GOZ expenditures over 1981 levels. The resulting Z3 billion deficit has inflated both prices (37.2%) and money supply, continuing past inflationary price trends (35.7% in 1981).

As relates to the national agricultural sector which is the focus of AID's concern, performance has been disastrous. During the post-Independence political instability 1959-67, marketed production decreased by 40%, resulting in a decrease from 21% to 13% in agriculture's share of GDP. After 1967 currency reforms, agriculture exports recovered from '67-'69 followed by slow growth until the mid-1970's. Stagnation in agriculture began at that time, aggravated by the world crisis, and food production levels have remained fairly constant and unresponsive to population growth. Zaïre has become a net food importer, especially of rice, maize, sugar, meat and fish. Major sectoral growth barriers are attributed, by the Bank of Zaïre, to the lack of support services for farmers, deterioration in the feeder road system, and marketing inefficencies. The agricultural investment program, therefore, prioritizes provision of farm inputs, credit for producers, price liberalization, and basic infrastructure (strengthened by transport sector investments).

III. CURRENT TRANSPORTATION PROJECTS

The best available information on current transportation projects (on-going and proposed) in Zaïre can be culled from the materials presented at the June 28-29, 1983, "Round Table on Financing of Projects for Opening Up the Land-locked Southern and Eastern regions of Zaïre" held in Kinshasa and coordinated by the ECA (Economic Commission for Africa, U.N.). The final report, which is being prepared by the ECA, has not yet been released.

According to the "Modal Summary Table: June 1983 Transport Priorities", first priority projects emphasize rail and roads, particularly the rehabilitation of the Lubumbashi-Ilebo rail, a key part of the National Route (see Table 10). Consequent strengthening of the transport functions and integrated development potential of the Kasai cities and Ilebo port can be expected. The benefits of proposed road expenditures are shared between several regions, since funding is requested for upgrading the Bas Zaïre portion of the National Road (Matadi-Kinshasa), the Bandundu section, and the Mbuji-Mayi - Mwena Ditu section of the same road in Kasai Oriental as well as Shaba roads. All of the cities on this southern axis of urbanization, the National Route, will increase their employment, economic dynamism, and marketing/transport services to rural producers if donor commitments for this program are secured. Road priorities also benefit the Haut Zaïre and Kivu regions, since continuation funding for the direct Kisangani-Bukavu Road is included. Donor commitments so far have included World Bank and KFW interest in the rail rehabilitation, and African Development Bank participation in both rail and most of the National Road No. 1 projects.

Donor commitments to lower order priority projects are still tenuous for the most part. Second priority projects would give long delayed assistance to river transport, and indirectly to the network of cities which line this armature. Interventions would focus on modernizing rolling stock, spare parts, reparations, and training of operations personnel in four sectors (rail, road, fluvial channel management, and maritime shipping). It is important to note that upgrading the fixed capital and rolling stock of the major national transport armature will be fruitless unless this is supplemented by the manpower development which is needed to protect these capital investments through the use of safe operating procedures and adequate maintenance. Expatriate technical assistance has been significantly and progressively reduced since Independence, requiring greater remedial efforts in local manpower training to reinforce local management autonomy.

TABLE 10

MODAL SUMMARY

JUNE 1983 TRANSPORT INVESTMENT PRIORITIES ('000's US$)

	1st Priority	2nd Priority	3rd Priority	4th Priority
RAIL	520,000		238,600	2,000
RIVER	14,300	24,570	117,250	
OCEAN	1,460	7,300		100,000
ROADS	136,000	57,800	548,500	77,000
AIR	13,600		12,800	
TRAINING (ONATRA, RVF,SNCZ,etc.)		10,415		
	$685,360	$100,085	$917,150	$179,000

First priority: rail - 76%, then roads - 20%, river - 2%, and air - 2%

Second priority: roads - 58%, then river - 25%, training - 10% and ocean port - 7%

Third priority: roads - 60%, rail - 26%, river - 13%, air - 1%

Fourth priority: Banana port - 57%, roads - 43%, and rail - 1%

Source: Calculations by the author from data provided in "Tableau Récapitulatif en Termes Financiers du Programme Présenté", Kinshasa, June 1983 Transportation Round Table, ECA.

Third priority projects would continue the rail and road focus through support for constructing bridges, installing ferries and upgrading feeder routes to isolated areas of Bandundu. Road proposals continue this pattern of increasing regional equity, by providing further financing for Haut Zaïre (continuation of the Kisangani-Bukavu Road and initiation of construction on the eastern section of the Trans-African), and opening up isolated areas in the Kivu and Equateur. The rail sector proposals include electrification of the Shaba and Bas Zaïre lines, and extension of the rail-river transfer ports of Kinshasa and Matadi. Though lesser sums are allocated for fluvial transport, some important actions are proposed, of direct benefit to urban functions in Kisangani (improvements to the Kindu rail-river port connection) and of indirect support to Kasai River port cities (improvements to rocky and sandy passes in the Kasai navigation channel and the expansion of Ilebo port).

The more visionary (and expensive) projects are appropriately assigned the fourth and lowest priority, including Banana maritime port construction, feasibility studies for an Ilebo-Kinshasa rail line, feasibility studies for the western section of the Trans-African, etc.

It is instructive to compare this laudable GOZ prioritization of transport projects, which fosters increased regional equity, and which includes direct or indirect reinforcement of all three major axes of urbanization, with 1972-1979 GOZ transport investment performance. For this purpose, the table "Part du Secteur des Transports dans le Budget d'Investissement de l'Etat" (see Table 11) is a useful summary. Its review shows that 1972-1979 actual disbursements strongly favored air transport, which has only limited economic spread effect for urban development. Roads received second priority, but were funded at much lower levels than would have been needed for adequate maintenance, much less upgrading. Rail and port investments were minimal, and freight volumes on these modes have suffered accordingly, along with employment, in the cities on these armatures.

The 1983 investment proposals have curtailed airport investments, and would improve facilities only at Lubumbashi and Bukavu. This is appropriate, as Bukavu's economic development has suffered a competitive decline since the opening of the Goma International Airport, and Lubumbashi air freight volumes are the highest in the country both because of its isolation and the high value of its cargo. Past investments have induced significant air traffic increases, as shown in the air freight volume map (see Fig. 16), but the

TABLE 11

TRANSPORT SECTOR ALLOCATIONS IN NATIONAL INVESTMENT BUDGETS, 1972-79

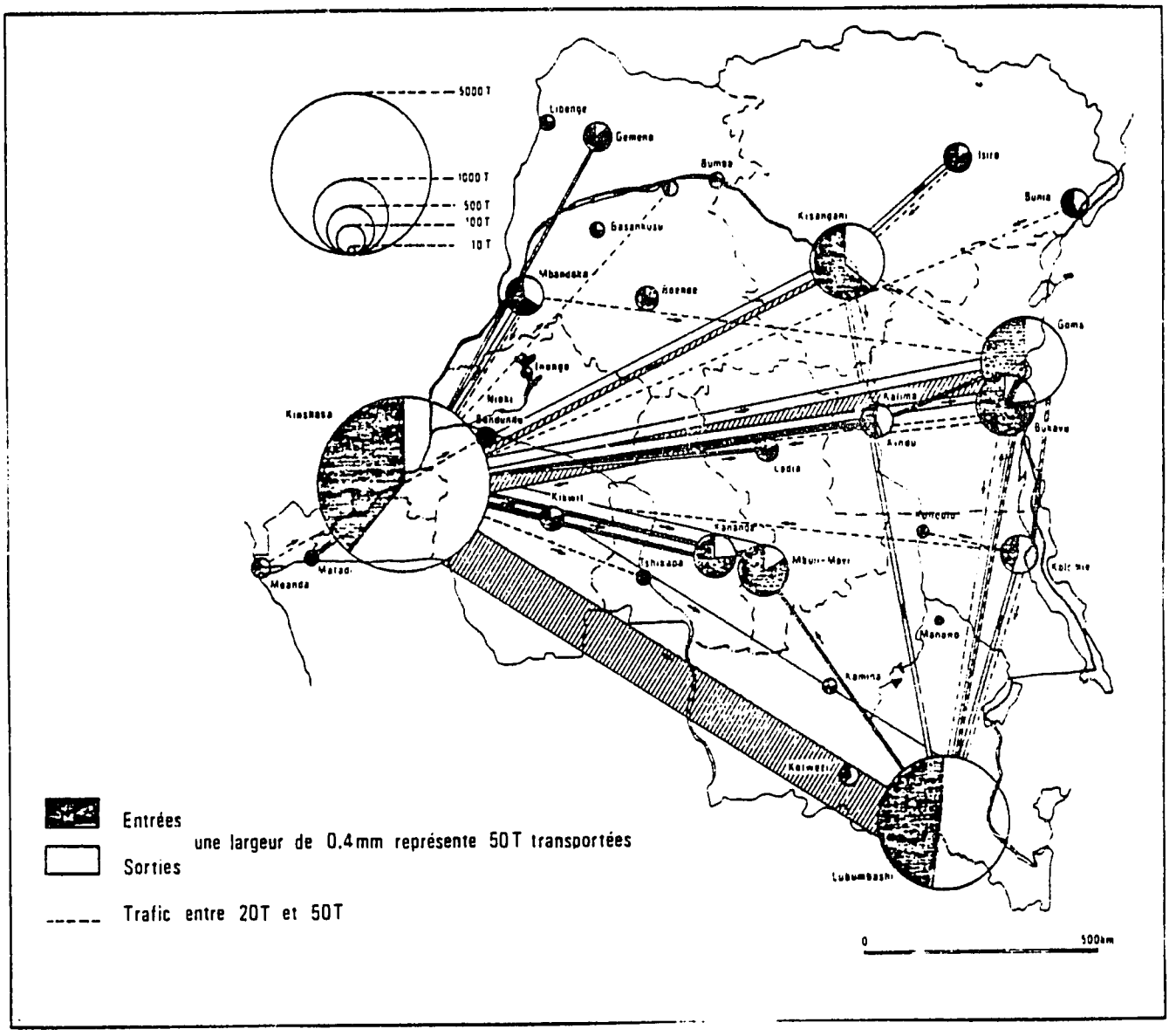
(in thousands of Zaires)

	1972		1973		1974		1975		1976		1977		1978		1979	
	plann-ed	expend-ed	plann-ed	expend-ed	plann-ed	expend-ed	plann-ed	expend-ed	plann-ed	expend-ed	plann-ed	expend-ed	plann-ed	expend-ed	plann-ed	expend-ed
Air Transport	5.074	2.343	1.700	2.261	4.541	2.639	6.410	2.549	10.956	6.313	11.049	8.599	10.302	2.678	9.114	12.859
River Transport	1.695	0.258	1.795	0.193	2.941	0.463	1.117	0.109	0.899	2.202	0.350	0.388	8.559	1.671	1.223	0.074
Maritime Transport	0.570	0.548	1.385	1.202	0.495	0.243	0.150	0.150	0.730	0.880	0.023	---	0.825	0.150	0.451	---
Rail Transport	1.475	1.125	0.560	0.256	0.550	0.579	0.467	0.141	2.263	0.767	1.080	0.150	1.610	0.150	1.363	1.188
Urban Transport	0.500	0.512	2.795	3.009	2.886	1.759	0.731	0.648	0.430	---	1.114	---	3.500	1.410	1.243	---
Road Transport	6.398	2.684	7.350	5.811	9.528	3.000	8.439	5.348	8.800	7.342	13.554	7.452	---	4.908	30.008	3.988
TOTAL Transport	15.712	6.960	13.221	10.377	18.786	8.684	29.471	11.307	26.445	18.517	27.502	16.946	24.650	11.110	44.679	18.847
% Transport Dept. of All Sectors	10%	5%	6%	5%	7%	4%	13%	6%	12%	8%	8%	10%	6%	5%	7%	12%
% Transport Sector of All Sectors	18%	8%	14%	12%	15%	6%	18%	12%	18%	15%	16%	19%	6%	10%	20%	15%
All	85.911	77.572	9.402	81.746	127.221	127.384	157.460	88.771	143.393	118.580	168.251	90.965	436.704	112.927	225.535	125.902

Source: Groupe des Etudes Economiques et de Programmation

FIGURE 16

AIR FREIGHT TRAFFIC, 1973



Source: BEAU, "Aménagement du Territoire: Esquisse d'un Schéma National", January 1982, p. 13.

equity effects are minimal, since aside from cobalt exports, only high value luxury imports and exports tend to use this mode.

Under both past investments and current priorities, the relatively low funding amounts assigned to fluvial transport upgrading, in comparison with the historical importance of this transport mode, raise concern and threaten the effective functioning of the large number of interior port cities so vital to services in the rural interior.

IV. SECONDARY CITY WATER SUPPLY SYSTEMS: EXTRACTS FROM AFRICAN DEVELOPMENT BANK LOAN PROPOSAL FOR FEASIBILITY STUDIES

African Development Bank, February 1984

Extracts from:

TERMS OF REFERENCE
FEASIBILITY AND ENGINEERING STUDIES
ON DRINKING WATER SUPPLY IN FIFTEEN CENTRES
REPUBLIC OF ZAIRE

Loan under consideration to fund this 15 month Feasibility Study Project.

Introduction

In 1982, the Executive Council of the Republic of Zaïre submitted to the ADB Group a request for the financing of studies on the reinforcement and extension of drinking water production and distribution facilities in the towns of Kalemie, Kikwit, Kamina, Kisangani Rive Gauche, Bunia, Kindu, Goma, Kolwezi, Mbanza-Ngungu, Lubumbashi, Boma, Isiro, Gemena, Lisala and Inkisi.

Project Area and Present State of Water Supply Installations

The fifteen centres covered by the present terms of reference are situated in six of the nine political and administrative regions of the country. They are the Shaba, Kivu, Upper Zaïre, Equateur, Bas Zaïre and Bandundu Regions. Two of the centres are chief regional towns while the remaining thirteen are chief sub-regional towns. In each of the towns concerned, the population's water supply requirements are far from being met because the water supply installations in these towns are obsolete or unsuitable. Water distribution is irregular in many of the neighborhoods of some of these towns and others do not receive any water supply; in most, there are disturbing epidemics of waterborne diseases. In the case of Kalemie and Bunia for instance, as a result of frequent cases of cholera, these two sub-regional chief towns devoted to agriculture, livestock, farming, and industry are experiencing a decline. To a lesser extent, cases of cholera are also recorded in Lubumbashi.

The proposed studies aim to correct the deficiencies of the existing water production, distribution, and storage systems and to achieve the following objectives:

- reinforcement of production facilities;

- systematic improvement of the water supply and distribution networks with a view to supplying the majority of the population through the provision of additional individual connections and public standpipes;

- reinforcement of storage facilities;

- improvement of the metering systems for production, the networks, and subscribers;

- on-the-job training of REGIDESO staff.

Brief Description of Consulting Services

The consultants selected after the tendering procedure shall for each of the centres:

- collect all the available data and reports on the water supply sector;

- verify population figures and evaluate present water supply demand, draw projections on the basis of maximum and most probable trends (for the year 2005 and satisfaction of requirements in 1985);

- take an inventory of available water resources, indicating those that can meet immediate requirements (1995).

- identify the projects, on the basis of the analysis of different solutions, which could help to meet water supply demand up to the year 2005;

- prepare engineering designs, draw up implementation schedules, prepare tender documents and propose confidential estimates for the first phase, that is for the year 1995;

- provide training during the underground water search for the technical staff that REGIDESO will place at their disposal and who should, after their training, strengthen the hydrogeological research and boreholes drilling team.

Data Collection

The studies shall include the collection and analysis of existing social and economic reports - population studies,

town development plans, industrial activities, social and health situations, standards of living, life styles, health standards, tariffing in relation to demand (type of consumers), sensitivity to demand (climatic conditions, costs), demand trends and peak coefficients. The analysis of the existing situation should be carried out in detail in order to determine the management capacity of the existing organs and complementary measures (training, finance) to be taken with a view to future improvement. At the same time an analysis of the present water consumption (sources, rate of service, leakage detection, daily quantity per inhabitant) as well as the part of revenue devoted to the procurement of water supply and sewerage services will be carried out. The data required for determining emergency measures in the most needy centres shall be collected at this stage. The centres are Lubumbashi, Kamina, Kindu, Goma, Bunia and Isiro. Tender documents shall be prepared for the implementation of the emergency measures.

Evaluation of Water Resources

The engineering consultants shall study all the region's water resources with a view to reinforcing existing production plants. Priority shall however be given to underground water search except at Goma, Kalemie, and Boma where the use of surface resources is the best alternative.

In Kalemie and Goma the consultants shall carry out a limnological study and a bathymetric reading in order to determine the suitable point of the lake where water intake is not subject to the influence of urban wastes and wastewater carried by the adjacent streams.

Evaluation of Electrical Energy Resources

The engineering consultants shall examine all the possibilities of ensuring permanent and reliable electrical energy supply to the water production and distribution plants of the following centres: Kikwit, Goma, Lisala, Isiro and Kindu taking into account the short, medium and long-term programmes instituted by SNEL.

The consultants shall make provision for energy supply to the above-mentioned centres in the following manner:

- take inventory of all waterfalls in the immediate vicinity of the project centre which can be harnessed at minimum cost for the installation of a microstation which will supply electric energy to the water supply facilities, the subject of the study;

- the use of other renewable energy resources should be considered in relation to energy requirements for the functioning of the facilities. However, special emphasis shall be placed on the use of wood as a source or energy, particularly the gas-producing system;

- for some of the centres, provision shall also be made for drawing energy from an existing hydraulic station. The consultant shall therefore consider the installation of a power line for the transmission of energy depending on the centres' energy requirements and especially in consultation with REGIDESO.

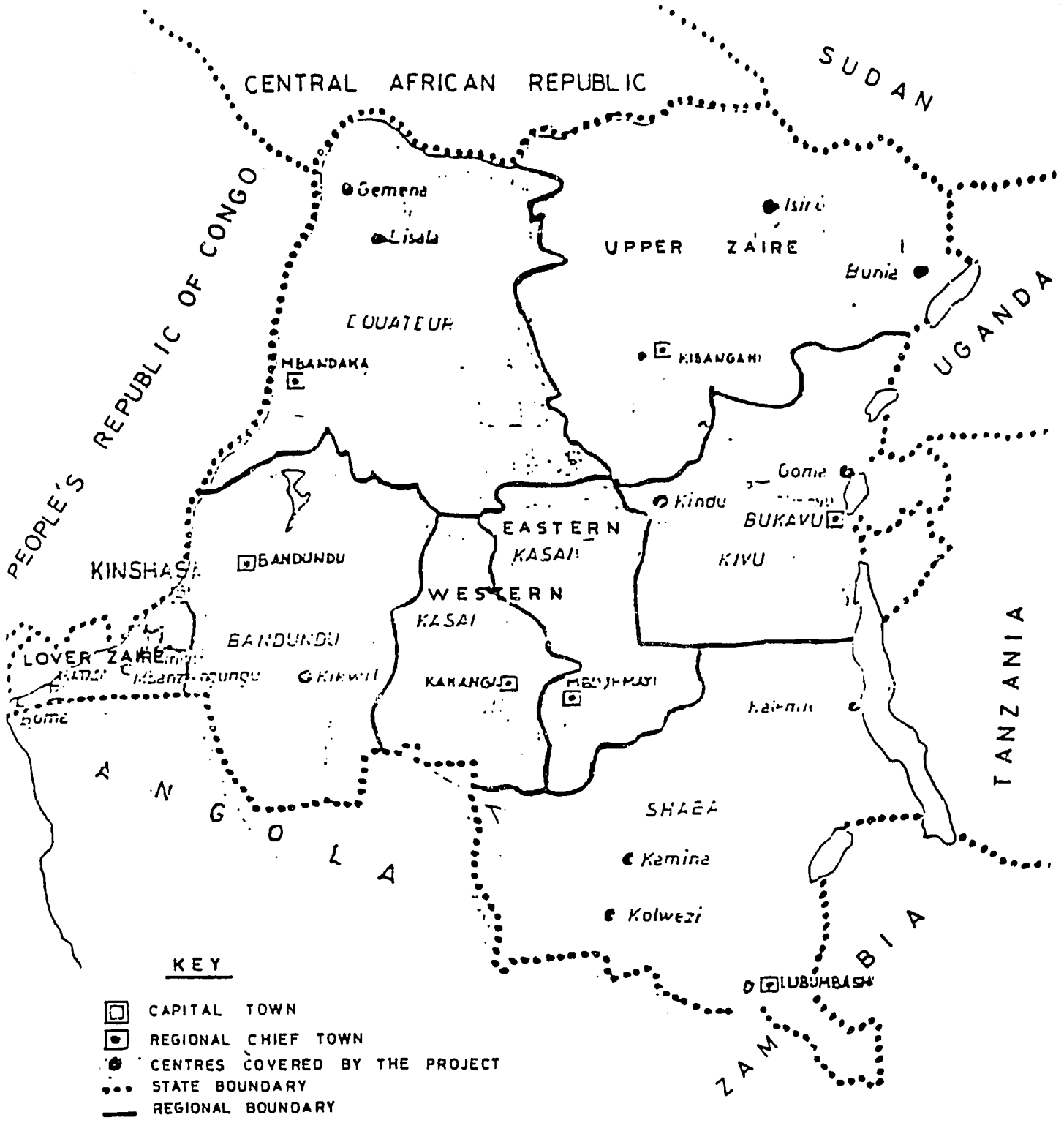
- the use of diesel generating sets should be considered as a last resort. The choice of the type of diesel generating set should take into account difficulties involving spare parts and gas oil supply.

Justifications

The studies should also include analysis of the technical, financial, economic and social justification of each project. It is necessary to mention statistical data on the rate of mortality caused by waterborne diseases as well as the promotion of some water consuming industries. Also to be provided are savings that can be realised on medical treatment expenses, losses of productive man/days, etc.

FIGURE 17

SECONDARY CITIES' WATER SYSTEMS
PROPOSED FOR FEASIBILITY STUDY
THROUGH AN AFRICAN DEVELOPMENT BANK LOAN



Source: African Development Bank, "Terms of Reference: Feasibility and Engineering Studies on Drinking Water Supply in 15 Centres, Republic of Zaïre", Annex 2, February 1984.

V. URBAN PROFILES OF TWO ZAIRIAN SECONDARY CITIES: LUBUMBASHI AND BUKAVU

Lubumbashi

Lubumbashi's site was chosen in 1910 by the Belgians near the first copper processing factory, and near the Etoile mine and the railroad. Evolution of the city has followed the railroad's axis (N-S), between the Lubumbashi and Kampemba Rivers. Since ravines such as those bounding Kinshasa and the slopes of Bukavu's site are not present, Lubumbashi is not threatened by the erosional problems which especially attack the squatter areas in other cities. Lubumbashi's major demographic growth began in 1940-45 as shown below, and continued at a high rate after the civil war:

TABLE 12

LUBUMBASHI POPULATION, 1945-85

1945	67,000	1973	432,901 (BEAU survey estimate)
1952	118,000	1975	480,875 (Administrative census)
1960	183,000	1980	586,000 (St. Moulin estimate)
1970	318,000	1985	765,000 (St. Moulin Projection)[1]

Based on a 1/62 sample of all parcels in the city[2], representative demographic and economic information was collected from all income categories in 1973, with financial and analytical support from Gecamines, and Belgium. As shown in the statistical annex, the rate of growth from 1970 - 73 was estimated at 10.8% per year, up from pre-1970 levels.

Since the survey took place in July, some distortion was caused, undercounting students since many of them would have been on leave in rural areas. Sex ratios have been tending towards equilibrium since in 1957 when there were 110 men to every 100 women. By 1973, more parity had been achieved, and for ages 15-45, as well as for the population overall, there

1. Léon de Saint-Moulin, "Perspectives de la Croissance Urbaine au Zaïre", Zaïre Afrique, No. 111, January, 1977, p.12

2. J. Houyou and Y. Lecoanet, Lubumbashi: Démographie, Budgets Ménagers, Etude du Site. BEAU, République du Zaïre, 1975.

were 102 men: 100 women. Analyzing sex ratios by age shows that the historical bias caused by predominantly male labor migration to cities (leaving women in rural areas) persists in older age groups. A review of age pyramids in '57 and '73 shows an increasingly younger urban population (and high dependency ratios), similar to BEAU findings in other cities:

TABLE 13
% OF URBAN POPULATION UNDER 20 YEARS OLD

Lubumbashi, 1973	63%
Kinshasa, 1967	62%
Kisangani, 1972	58%

As an indicator of urban social attitudes, early age of marriage persisted among women in Lubumbashi (56% married between ages 15-25) while men were marrying later (only 12.8% married, ages 15-25). Average household sizes also showed consistency across the various cities:

TABLE 14

AVERAGE NUMBER OF PERSONS/HOUSEHOLD

Lubumbashi	6.0
Kinshasa	5.9
Kisangani	6.5

Household size increases with income level, thus 53% of the population of Lubumbashi lived in eight + person households, and 18% in 11 + person units. Employment data show only 13.8% of the population as remuneratively employable, results which are confounded somewhat by the additional reported 16.3% which are housewives. It is likely that many of the "students" and "housewives" are also earning part-time incomes in informal sector trade or services. Nevertheless, dependency ratios are very high, placing considerable demands on urban wage earners.

TABLE 15

LUBUMBASHI EMPLOYMENT DATA, 1973

% children under age 6	24.3%
% students	30.0%
% housewives	16.3%
% remuneratively employable	13.8%
% inactive (children over age 6 not in school, elderly and unemployed)	15.6%

Unemployment data shows 30% of men aged 15-24 who are not in school as unemployed. From age 15-21, about 50% of the men are still in secondary school, and job market entry is therefore highest from age 25 on. Approximately equal male/female ratios of primary school attendance were reported (around 90% for ages 8-12), but significantly lower female than male attendance in secondary school (less than 50% as many women attend as men). Only about 23% of women between ages 15-24 were attending school. Since about 43% of the population cited "attending school" and "seeking employment" as their major reasons for living in the city, these two key functions are priorities for all urban studies. As stated earlier, school enrollment rates reported by the study are likely to be underestimates, since many students would have been on vacation in rural areas (or other cities) during the survey period.

TABLE 16

% ENROLLED IN SCHOOL BY AGE AND SEX, LUBUMBASHI 1973

	Male	Female	Total
Age 6 - 15	83%	75%	78%

Similar to what was found in other studies (e.g. Bukavu), the age of school attendance is late, and completion of education is prolonged (only after age 15 do most students enter secondary school). This seems to be explained by insights provided by Kikwit interviews - young children are often

engaged in the childcare of younger siblings, which delays their primary school entry.

Economic dependency rates seem to have been increasing (though the reliability of income and employment data in Third World countries is extremely questionable, especially in Zaïre).

TABLE 17

LUBUMBASHI DEPENDENCY RATIOS, 1955-73

1955 - 57	3.6 persons/salaried worker
1973	7.3 persons/salaried worker

Those reported by the survey as employed included salaried workers (85%) and self-reported independent business people (15%). This 85% share of salaried workers includes about 7% upper administrators, 23% other white collar employees, 31% skilled and semi-skilled blue collar workers, and 25% unskilled manual workers. The self-employed were mainly providing secondary and tertiary services. Of all remuneratively employed workers, about 13% were engaged in primary sector activities (of which 10.7% were in the extractive industries found in Lubumbashi but not available in most other cities), and about 27% were in the secondary sector (transformation activities such as textiles, food processing, manufacturing, construction and public works). The remaining 60% were engaged in tertiary activities such as utilities, commerce and banking, transport, communications, and government administration (40% of all jobs were in this sector). As stated earlier, in the section on regional inequity, the employment structure of all Zaïrian cities in 1970 was skewed towards the tertiary sector, as is shown in this survey material even for Lubumbashi (a city particularly well placed for primary and secondary sector development). The many unreported informal sector activities would show this pattern even more extremely, since they would mostly fall into the tertiary sector (retailing, repairs, transport, etc.)

The source of demographic increase is twofold: natural increase (52% of residents were born in Lubumbashi) and immigration. Migrants are likely to have been under-reported, through census and survey avoidance. The most intense periods of in-migration to Lubumbashi were before 1908, from 1938-43, and since 1971. The two earlier periods were caused by labor recruitment (sometimes by force) to meet extractive production and city construction needs, and during World War II, to develop self-reliant secondary sector transformation

activities after the severing of the usual national import supply lines. The 1941-43 period saw more than a doubling of preceding in-migration (4,000 over a three year period). Much larger in-migration estimates for 1971-73 were made based on survey findings reported below:

TABLE 18

SHARES OF POPULATION GROWTH FROM IN-MIGRATION AND NATURAL INCREASE, LUBUMBASHI, 1971-73

	Births	In-Migration
1971	12,958	18,826
1972	18,290	22,134
Jan - August 1973	12,400	23,250

Actual in-migration rates were higher. These figures only report migrants still living in Lubumbashi in mid-1973 who had arrived during this period. Other migrants who avoided survey team members, or who had already returned to the rural area temporarily or permanently (lack of work, rural production activities) would have amplified these figures. Post-1971 in-migration jumped in response to the re-establishment of political stability after the civil war. These figures also show a continuation of Lubumbashi's historical pattern (1955-57) of high birth rate. Since the second part of the '73 calendar year was a less favorable period for in-migration (rainy season - difficult to construct housing), and a normal mortality figure of 9.3% has been calculated for Lubumbashi, BEAU estimated that 1972 annual in-migration figures could be considered still representative in 1973. In general, BEAU expected future rates of natural increase to remain at 4.5% per year to which would be added urban growth of 6.3% per year through in-migration.

Survey results indicated that self-employed business people had greater economic purchasing power than salaried white collar workers (contrary to findings in Kinshasa and Kisangani, during the same time period). Unskilled workers had similar incomes to those who were self-reportedly unemployed, approaching minimum survival levels. The greatest economic hardship was reported in squatter zones, since they are situated far from informal sector earning opportunities, and their inhabitants incur the greatest costs for transportation.

Of those surveyed, two thirds of the heads of households were salaried workers whose incomes represented 56.7% of total household income. An additional 6.3% of household income came from other household members' salaries, 5.7% from gifts, and 2.9% from household production for auto-consumption (raising of garden food items and livestock). The remainder of household expenses was covered by other sources: 50% of other household members contributing income obtained their funds from trading (especially wives), and 25% of wives were engaged in agricultural activities. One third of heads of households had additional occasional income, outside of their regular professional employment, derived from using their technical skills for private clients, and 6% were engaged in some agricultural work part time. Other income reported by household heads included trading (6%), renting their possessions (4%), fraud and embezzlement (3%), transport services using their own or official vehicles and traditional medical practice (3%), etc. Of the "unemployed", categorized as such because they lacked regular incomes, 40% had occasional skilled or unskilled wages, 14% cultivated fields, 11% traded, and 21% had various revenue sources. Only 14% of the "unemployed" reported total lack of income or work activity.

A considerable amount of information is available in the BEAU report on urban physical infrastructure problems, and specific spatial potentials and constraints to urban growth management, but comments will be restricted to issues particularly relevant to the Rural-Urban Profile. In squatter settlements, no electricity or city water services were available, with the exception of two water points installed by Regideso in Cité Zaïre. The neighborhood of Tabozaïre used an impromptu fountain at the southern edge of the industrial area. Private individuals who were fortunate enough to have public water taps on their compounds in the planned cités were selling water at prohibitive prices. Some squatters had constructed 6m - 13m wells which threatened to lower the water table; others used the river. Squatting areas began just beyond the Gecamines concession boundary and often occupied hazardous building sites such as river banks and swamps. Household garbage was dumped in the public ways. Only pedestrian and bicycle transport within the squatter zones was possible. Only the Katuba Mbuji-Mayi neighborhood, where a Catholic mission is located, had many facilities. Dispensaries and maternal and child health centers were particularly needed.

This lack of residential services or transport to employment centers had motivated squatters to construct near planned neighborhoods, to take advantage of their infrastructure,

while also overloading it. The planned cités were the port of entry for 73% of urban migrant households, generating the high density situation in those planned neighborhoods (408 persons/hectare, 1.75 households per compound).

Of migrants living in the squatter settlements, 52% had formerly lived in these dense planned cités. The heads of squatter households were generally blue collar workers who were attracted by the lower cost of housing there, and who were responding realistically, through private initiative, to the inability of the State or private enterprise to meet shelter sector needs. BEAU recommended developing major road and water systems for these squatter areas, basic dispensaries, and schools, confining public services to these key sectors and allowing ownerbuilt housing to expand within this basic framework.

To summarize the problems emerging in Lubumbashi from BEAU's point of view, in the 13 years from 1960 to 1973, the city's population more than doubled and most of this increase was among the low income groups. At the 6.83% average annual growth rate up until that time, the city was expected to exceed one million by 1986 and perhaps sooner, since that rate had been maintained in spite of the civil war's dislocations, and 1970-73 growth rates (10.8%) were much higher. The national census currently being initiated will verify whether this projection is correct, or whether Saint Moulin's hypothesized decline in growth has taken place, delaying Lubumbashi's arrival at million city status until 1980. In the course of this growth, sex ratios were approaching equilibrium, but with 63% of the population under 20 years of age, the city was faced with an exponentially increasing demand for educational and cultural facilities to meet the needs of the 30% of its population who were enrolled in schools. The employment picture was becoming increasingly grim. Though almost 50% more jobs were available in 1973 than in 1957, since the population had more than doubled during this period, the percentage of remuneratively employed persons had decreased from 28% ('55-'57) to only 14% in '73. Therefore, salaries that supported 3.6 persons in '57 had to support 7.3 persons in '73. Just to keep employment rates in '74 equal to those in '73, 3,500 new jobs should have been created in that year alone.

Corn is the primary food staple in the city. Even among the salaried households, remuneration covered only 82% of expenses, and the cost of food absorbed 61.5% of household expenditures, even though adults were consuming only 66% of minimum daily food requirements. Even in the highest income

brackets, 51.2% of household expenditure was needed for food, since more well-off residents were expected to support larger numbers of dependents. Lodging was the second highest household budget item, absorbing 14% of total household expenditures of squatter homeowners and tenants.

As an indicator of economic inequity, 80% of the population accounted for 53% of consumer expenditures. The center city residential areas were the least dense (40 persons/ha.). Lower income planned neighborhoods were far from the industrial employment area and were much more dense (176 persons/ha.). The remainder of in-migration was channeled towards densification of the planned low income neighborhoods, occurring at a rate of 3.4% per year through infill construction. In spite of these economic inequities, physical infrastructure and planning problems, BEAU felt that overall economic conditions among low income groups in Lubumbashi were better than those in Kinshasa and Kisangani.

TABLE 19

LUBUMBASHI STATISTICAL ANNEX, 1957-73

1973 No. of Compounds in City:	44,203
1973 Average No. of Persons per Parcel:	9.2
1973 Average Household Size:	6.0 persons
BEAU Estimates: Average Annual Rates of Population Growth	
1960 - 1973:	6.84%
1970 - 1973:	10.80%
Total No. of Permanent Jobs 1957:	38,836
Total No. of Permanent Jobs 1973:	56,000
No. of Jobs Created 1957-1973:	17,164

Bukavu

Bukavu is the regional capital of the Kivu, and the most important secondary city in Bas Zaïre's eastern axis of urbanization. Kivu soils, being mainly volcanic, are extremely fertile, producing a year round cropping potential for a wide variety of fruits and vegetables. Tea and coffee are cultivated and, in the past, were concentrated on expatriate-run plantations. Though known as the national granary, Bukavu is poorly linked with national transport systems, reducing the effectiveness of supply of both imports and exports. Opened in 1969, the Kivumu airport can accommodate Boeing-size aircraft, and has made air freight a more viable proposition for links with Kinshasa. As with many other sections of this Profile, the author has had to rely on 1976 BEAU survey data, the most recent available information. Ethno-historically, the only truly local group is the Pygmies, but the agro-pastoral Bashi had established territorial dominance on the Bukavu site prior to colonial urban development. In general terms, 1870-1899 saw the initial penetration of explorers, missionaries, and colonial agents, followed by effective occupation and frontier defense in 1900-1910, and initial economic exploitation of the Kivu in 1910-1918. Urbanization on the site of Bukavu began in 1900 with the creation of a military post strategically located to counter the German presence in Rwanda, and within two years was followed by the initiation of administrative functions on the site, including by 1912 control of immigration and commerce. By 1914, the future Bukavu had become the chief site of administration in the Kivu territory. Bukavu achieved the status of an urban circonscription in 1925, and received a development focus in 1933 territorial reforms which established Bukavu (then known as Costermansville) as the headquarters of Kivu Province. In 1947, an industrial development area was created. In 1950, northern and southern Kivu districts were designated, accelerating Goma's development in the north, while Uvira growth in the south continued the deceleration which had begun in 1930. The last administrative expansion of the Bukavu urban boundary occurred in 1967-68. Belgian physical and social planning principles have generated separate European, Asian, African, and industrial neighborhoods. Since colonial planners had judged 12,500 people to be an optimal size for an African neighborhood, Bagira was constructed to decongest the earlier Kadutu area, and a green belt had been legislated between the two areas. Urban services outside of the European area were only developped post-1950. From 1960, development has been anarchic.

BEAU's Bukavu studies included an October-November 1970 survey which can be compared with its 1976 survey. The 1976 survey methodology used a 10% household sample, stratified socio-economically, relying upon 74 locally recruited survey assistants (5th year high school students) who collected data during May and July in 1976. Computer analysis required the collaboration of the IRS-Kinshasa (Institute for Scientific Research) and the Belgian Social Science Archives, who had also assisted with the Lubumbashi analysis discussed earlier.

The survey noted the increasing emergence of households which simultaneously maintain both urban and rural residences. The urban one is left empty during periods when the household returns to cultivate fields or obtain produce, a pattern which increases rural/urban interaction and urban dependence on rural family members, and especially affects ethnic groups with homelands near the city. BEAU projects as an increasing trend, in fact, the "ruralization" of Bukavu along these lines in future. The available statistics show, however, a decrease in the share of "rurally oriented" populations in Bukavu from 40% in 1958 to 17% in 1970, which remained fairly stable until 1976, when 17.8% of those surveyed had "rural" orientations.

Bukavu population levels and growth rates were strongly affected by political events, including: '56-'58 administrative measures to stem rural exodus, a counter-reaction in urban migration in '60, disturbances in 1961 and 1964 and '67 mercenary activities which periodically incited urban-to-rural migration, trends which were reversed each time political stability was regained. Wide economically-related variation in intra-urban densities was noted in 1976, e.g. 545 persons/hectare in cités versus 50 persons/hectare in upper income areas. This was an increase over '70 density observations, caused by infill construction, but the number of persons/unit was fairly constant across economic categories, and was less than what was shown in '70 data.

The high density of rural population in Bukavu's hinterland (the highest in Zaïre still today), attributed in part to the Kivu's location as an attractive site for migrants from Uganda, has accounted for the city's high growth rate. In this context it is confusing to note that in the 1976 survey, 86% of Bukavu's population was reported as indigenous to the Kivu (75% of them were from the Shi, Rega, and Havu tribes), and 11.7% was attributed to other regions of Zaïre. These statistics did not account for political refugees and economic migrants from outside Zaïre. Internal politico-social tension was reported from the assignment of upper administrative

positions to Zaïrians from far-off regions, but this was an intentional political move from the Presidency, implemented nation-wide to discourage regional secessionist leadership mobilization. High fertility in Bukavu resulted in an estimated 3% annual rate of natural increase, out-stripped by an average 5% in-migration rate of increase in 1970. Survey questions in 1976 on prior residential patterns indicated that just under half of all urban-dwellers (43.8%) had migrated to the city from a prior rural residence. The more than half of the residents who had been born in Bukavu were divided into those who had remained in their natal neighborhood (20.8%) and those who had moved from an earlier residence in another part of the city (35.4%). The extent of internal residential movement within the city is a level of detail beyond the requirements of the present study, but is, however, a variable of interest in more detailed housing investment projects, since neighborhood perceptions and rates of housing turnover affect occupants' willingness to invest money in upgrading their units and time in lobbying for broader urban infrastructure improvements.

As in Lubumbashi, schooling tends to start late and to be prolonged in Bukavu. Dropout rates are high, and in the drive to open more schools quickly to respond to demand, teaching quality control suffered. Of the population over six years of age, 25% had never been to school, 50% had been to primary school, and only 25% had been to secondary school.

Employment data for 1976 showed only one-third the workforce (over 15 years of age) as remuneratively employed, including half of the males and only 16% of the females. Youth unemployment is complicated by the retarded educational pattern cited earlier in the discussion of Lubumbashi, and is therefore difficult to isolate. Two-thirds of remuneratively employed males were over age 30, however, with an average age of 37, and about 3.7 dependents were supported by each of these male salaries. The dominance of the tertiary service sector noted in other secondary cities was also observed in Bukavu, where it provided 75% of urban jobs, with only 11.5% of jobs in primary production and 13.3% in the secondary sector. The remuneratively employed workforce was divided fairly evenly between 37.5% self-employed, 32.5% professional and other white collar employees, and 29.8% manual workers (dominated by semi or unskilled workers). There were strongly noted correlations between socio-economic status and region of origin.

Urban infrastructure was poorly developed, with only 25% of housing made of durable materials, mostly dating from

1945-1960. From post-Independence to 1976, only 50 housing units had been constructed of durable materials. The aging and deteriorating housing stock in these planned areas (the former colonial reserves) were served by the only utilities. The remaining 75% of the housing stock had been owner-built since 1960, and residents of these "spontaneous" units were overloading (and therefore accelerating the deterioration of) the utility systems in the planned areas, similar to the experience of Lubumbashi. The rate of owner occupancy of housing was highest among the lower income groups. No overall urban plan had been approved, and problems were being handled on a seat-of-the pants crisis basis, leading to temporary (at best) solutions. Bukavu's high altitude site (1463 m. on the edge of Lake Kivu) reinforced the colonial design for separating neighborhoods and has contributed to erosion problems which are also evident in many urban sites in Zaïre (Kinshasa, Kikwit) and which are aggravated by the heavy rainy season. Some studies have begun of erosion in Kinshasa, and Bukavu (Citoyen Kalala Mwamba, ERTS Kinshasa, 1983) but have not yet produced published plans. The older of the two indigenous housing areas, Kadutu, reported to be over-saturated in 1976, included half of the city's population on only two km^2. In 1976, squatter settlements housed approximately 70% of the Kadutu population and 45% that of Bagira. Bagira was still extremely under-developed and Pangi had been designated as an urban extension area.

In summary, Bukavu produced little in a direct sense, though its rate of consumption was high, and according to the BEAU survey, the city was not well integrated into its agricultural hinterland. The 1967 political disturbances inflicted major damage on the urban economy, and 1974 Zaïrianization reforms did not institute a recovery. Through the comparison of 1970 and 1976 studies shows a reduced population growth rate (8.5% versus 3%), urban economic problems raise serious concern since the 1980 BEAU "Esquisse d'un Schéma National" states that the high rural densities of the Kivu (200 persons/square km) place Bukavu at risk of being assaulted by increasing rates of urban migration in the future, because rural landlessness is increasing. The importance of linking smaller urban sites throughout the rural areas with Bukavu, to encourage their development rather than Bukavu's expansion, has been cited by BEAU.

Bukavu and the Kivu region as a whole, has always been more oriented towards the east than towards Kinshasa. The Bukavu-Kinshasa road is three times longer (with five intermodal freight transfers) than the Bukavu-Indian Ocean road. Ugandan political events disrupted Kivu commerce, which

would not have been the case if the transport links to Kisangani, Goma, Shabunda, and Kindu had been better developed. These links are a future priority. Bukavu has not yet been effectively integrated into eastern Zaïre tourism. While Goma has gained a priority advantage in tourism, thanks to the construction of its international airport, Bukavu could generate at least 1,000 direct (and another 1,000 indirect) jobs from hotel sector development (an immediate 10% increase over the number of jobs reported in the city in 1976). The beauty of its natural site, and its climatic advantages (19°C temperature, with a 25°-15°C range) make tourism a feasible sector for Bukavu's economic expansion.

TABLE 20

BUKAVU STATISTICAL ANNEX, 1948-76

No. of Compounds:		22,919
Average Density:		26 persons/hectare
Average Household Size:		6.7 persons
1948-1970 Average Population Growth Rate:		8.7%/year
1970-1976 Average Population Growth Rate:		3.0%/year
Population Doubling Time:		9 years
1976 Age Pyramid:	Less than 15 years old:	52.8% of total population
	Less than 20 years old:	65.8% of total population
1976 Sex Distribution:		Equal except for post-age 45 group (skewed towards males)
1976 Age of Marriage:		Rising

	1970 Population	1976 Population
Administrative Census	134,861	157,000
BEAU Survey Estimates	133,659	155,963

Annual Regional Population Reports (Kivu),
Regional Division of Political Affairs:

1971	1972	1973	1974	1975
138,292	137,171	133,357	139,771	150,613
				175,000*
				(BEAU estimate)

*Note: Estimate based on following assumptions and observations:

a) 3% annual natural increase

b) 5,000 in-migrants/year

c) 20,000 units surveyed in '70 were untraceable in '76 survey returns (surveyor error attributed).

d) the political drive towards returning urban unemployed to rural areas incites census avoidance behavior. A large number of uninhabited dwellings in densely settled areas were noted, and seem to confirm this avoidance.

Evolution of Rural/Urban Orientations as % of Bukavu Population

	% Urban	% Rural
1950	66,0%	34,0%
1951	67,0%	33,0%
1952	70,0%	30,0%
1953	68,5%	31,5%
1954	69,0%	31,0%
1955	72,0%	28,0%
1956	70,0%	30,0%
1957	67,6%	32,4%
1958	60,0%	40,0%
1970	83,0%	17,0%
1976	82,2%	17,8%

VI. MAJOR RESOURCE PERSONS CONTACTED DURING KINSHASA RESEARCH FOR NATIONAL RURAL-URBAN PROFILE

Citoyen Luzolo Kumi	Directeur, Commissaire Général au Plan
Citoyen Kankonde Mbuyi	Directeur, BEAU
M. Berrel	Director of Studies, BEAU
M. Lebegot	Coordinator of Studies, BEAU
Citoyen Mbuluku Nsaya	Chef de Cellule Urbain, BEAU, and Research Assistant for Kikwit Field Trip
Citoyen Masoka Futiulunga	Chef de Cellule Aménagement Rural, BEAU
Citoyen Lukusa	Head of Secondary Cities Studies, BEAU
Citoyen Tiker Tiker	Directeur Adjoint, IRES, University of Zaïre, Kinshasa
Citoyen Kabeya Tshikuku	Secrétaire de l'IRES, University of Zaïre, Kinshasa
Citoyen Bakutuvuidi Makani	Directeur de la Direction des Statistiques Démographiques et Sociales, Institut National de la Statistique
Citoyen Ilunga Longi	Directeur, GEEP, Groupe des Etudes Economie et Planification, Département du Transport
M. Joseph Tadesse	FAO Program Officer
M. Thorigné	Coopérant Français, ONPV - Office National des Produits Vivriers, DMPCO
M. Rafik Saidi	Conseiller Juridique, UNHCR
M. Bazoche	Délégué Régional Adjoint, UNHCR, Central Africa
Citoyen Malu wa Kalenga	Chargé de Programme, Service Présidentiel d'Etudes
Citoyen Kazamba Mukumadi	Urbanist, Service Présidentiel des Etudes

M. Ghislain Dussault	Canadian Economic Consultant to National Census of Businesses, Département du Plan
Citoyen Mibulumukini na Mbeka	Administrateur Général, ZOFI (Zone Franche d'Inga)
M. Pierre David	French Technical Assistant and Engineer/Urbanist, ZOFI, Conseiller au Service des Infrastructures
M. Zientora	Construction Engineer and Belgian Technical Assistant, Adjoint au Chef du Service Infrastructures, ZOFI
Citoyen Djemba Kukulu	Civil Engineer, Service des Infrastructures, ZOFI
Citoyen Kala E'ber	Président Délégué Général of Régie des Voies Fluviales
M. Prud'homme	Technical Assistant, ONATRA
M. Delfosse	Technical Assistant, ONATRA
M. Moens, and M. Alain Penfentenyo	Office des Routes, Kinshasa Technical Assistants
M. Olivier Deillon	Director, Service de Gestion du Matériel de Travaux Publics (SGMTP), Office des Routes. He is an ORT Technical Assistant
Larry Cheshire	Zaïre Cargo Head Pilot
M. Pierre Thiran	Secretary General of ANEZA (Association Nationale des Entreprises du Zaïre)
Citoyen Kazadi	Chef de Service Principal, Direction Economique, ANEZA
Citoyenne Nansha	Secretary of ANEZA Archives
Citoyen Nasudi	Commercial Director, ANEZA
Citoyen Mayuba Mavungu	Geological Engineer, Chef de Division des Applications Techniques, Programme ERTS

Citoyen Kalala Mwamba	Researcher at ERTS (Earth Resources Satellite Mapping Unit)
Citoyen Ilunga Nday	Agricultural Engineer, ERTS
Citoyen Kazadi Tambwe	Mining Engineer, ERTS
Père Didier	Director of CEPAS
Père Verhaegen	INADES Professor at CEPAS
M. Henri Levy	Training Coordinator, ORT Technical Assistance (Organization for Rehabilitation through Training), London, was on mission in Kinshasa
John Yeatman	Kinshasa Project Director, Habitat for Humanity Housing Project
Citoyen Nito	Secrétaire de Direction, Habitat for Humanity

USAID

Mr. Richard Podol	USAID Mission Director
Lee Braddock	Chief of the Design and Evaluation Office
Anne Williams	Assistant Project Development Officer
Elizabeth Reid	Senior Design Consultant, DEO
Henriette Edmond	Economist
Woody Navin	Agricultural Economist
Skip Waskin	DEO Roads Project Manager
Bob Harrelson	DEO

VII. BIBLIOGRAPHY OF DOCUMENTATION COLLECTED

URBAN

AID Office of Housing. "Zaïre Shelter Sector Analysis", Jan. 1975.

Administration de la Zone Franche d'Inga. Domaine Franc de Moanda - Banana: Port en Eau Profonde de Banana. Travaux 1ère Phase: Urbanisme. Rapport Justificatif 1ère Partie, July 1983.

African Development Bank. "Terms of Reference: Feasibility and Engineering Studies on Drinking Water Supply in Fifteen Centres, Republic of Zaïre", ADF/ZAI/WAT/84-01, February 1984.

BEAU (Bureau d'Etudes d'Aménagement Urbain). "Aménagement du Territoire: Analyses Préliminaires et Orientations", June 1982.

BEAU. "Aménagement du Territoire: Esquisse d'un Schéma National", Département des Travaux Publics et de l'Aménagement du Territoire, January 1982.

BEAU. "Fiche Signalétique des Centres Urbains: Le Réseau Urbain du Zaïre", no date but post-1981.

BEAU. "Livre Blanc de la Région Economique de Kinshasa", Département des Travaux Publics et de l'Aménagement du Territoire, May 1978.

BEAU/CNUEH/PNUD. "Deux Projets Expérimentaux - Présentation Générale: Amélioration de Quartiers, Extension Urbaine, et Auto-Construction Assistée", Département des Travaux Publics et de l'Aménagement du Territoire, June 1983.

Bia, Balangua. "Analyse des Structures Urbaines de Kikwit et Bandundu Suivant la Documentation du BEAU", report on student intern research at BEAU, August 11, 1978.

Bontinck, François. "Mbanza Lemba et les Origines de Kinshasa", Zaïre-Afrique, xeroxed, no date.

Bruneau, Jean-Claude and Mwenge Mbuyu. "Passé, Présent et Avenir Possible de l'Urbanisme à Lubumbashi: Réflexions et Propositions pour une Meilleure Maîtrise des Processus d'Urbanisation au Zaïre, Zaïre-Afrique, xerox, 1983.

Direction des Statistiques Démographiques et Sociales/INS. "Etude Socio-Démographique de Kananga, 1974: Rapport Général", study financed by IDRC, 1978.

Divison Régionale/Equateur, Commissariat Général au Plan. "Approvisionnement de la Ville de Mbandaka en Produits Vivriers de Base", Mbandaka, December 1982.

Georges, Fr. "Cités des Pionniers de Kapulwa et Dakarta: Essais Agricoles avec les Jeunes Citadins", 1er Séminaire National sur le Développement Rural au Zaïre, Kinshasa, May 8-13, 1978.

Houyoux, Joseph and Yann Lecoanet. "Lubumbashi: Démographie, Budgets Ménagers et Etude du Site", BEAU, 1976.

INS (Institut National de la Statistique). "Etude Socio-Démographique de Kisangani, 1973", unpublished manuscript xeroxed in Kinshasa, 1983.

INS. "Etude Socio-Démographique de Lubumbashi, 1973", unpublished manuscript xeroxed in Kinshasa, 1983.

IRES (Institut de Recherches Economiques et Sociales). "Index des Prix de Détail de Biens de Consommation Courante aux Marchés de Kinshasa, Novembre 1973-Mars 1974", Cahiers Economiques et Sociaux, V.XII No. 1, 1974, pp.126-131.

Isono, Mafula. "Les Activités Artisanales sur le Boulevard Mobutu à Kikwit", Geography thesis for Institut Supérieur Pédagogique, Kikwit, October 1982.

Kalala, Muamba. "Etude sur le Phénomène d'Effondrement en Rapport avec l'Hydro-Géologie Karstique dans le Contexte de l'Aménagement du Territoire de la Ville de Mbuji-Mayi (Kasai Oriental)", no date but since 1980.

Kidiata, Kalumbila Nguya. "Le Phénomène de l'Exode Rural dans les Zones Urbaines de Kazamba et de Lukemi (Ville de Kikwit)", Geography thesis for Institut Supérieur Pédagogique, Kikwit, July 1983, xerox of selected pages.

Knoop, H. "Some Demographic Characteristics of a Suburban Squatting Community of Leopoldville - A Preliminary Analysis", Cahiers Economiques et Sociaux, Vol. IV No. 2, June 1966, pp. 119-150.

Lohletart, Louis and Houyoux, Joseph. "Kolwezi: La Ville, sa Population et les Budgets Ménagers", BEAU/Dëpartement des Travaux Publics et de l'Aménagement du Territoire, July 1975.

Lufungula, Lewono. "Il y a Cent Ans Naissait Equateurville: L'Ebauche de l'Actuelle Ville de Mbandaka, Juin 1883-Juin 1983", Zaïre-Afrique, xeroxed, no date but 1983.

Masoka Fumulanga, Mwalundu. "Kikwit, Etude de Géographie Urbaine", thesis presented to Geography Department of Université Nationale du Zaïre, Lubumbashi campus, July 1977.

Masoka Fumulunga, Mwalundu. "La Ville de Kikwit", hand written lecture notes focussing on erosional problems in Kikwit, and public drainage works needed, no date.

Masoka Fumulunga, Mwalundu. "Les Origines de la Ville de Kikwit", handwritten lecture notes by this BEAU Geographer, no date but about 1975.

Masoka Fumulunga, Mwalundu. "Structure Spatiale et Possibilités d'Aménagement de la Ville de Kikwit", typed notes but uncomplete, no date.

(21)

Mbumba, Ngimi. "Kinshasa 1881-1981: 100 Ans Après Stanley, Problèmes et Avenir d'une Ville", Centre de Recherches Pédagogiques, Kinshasa, 1982.

Mpase, Nselenge Mpeti. L'Evolution de la Solidarité Traditionelle en Milieu Rural et Urbain au Zaïre: Le Cas des Ntomba et des Basengele du Lac Mai-Ndombe, Presses Universitaires du Zaïre, Kinshasa, 1974.

Mumpasi, Zola. "Rôle et Importance du Port de l'ONATRA de Kikwit", Geography thesis for Institut Supérieur Pédagogique, Kikwit, October 1982, xerox of selected pages.

Munday, Lusela Neron. "Les Phénomènes de l'Exode Rural et leur Influence dans les Zones Périphériques de Lukolela et Nzinda à Kikwit", Geography thesis for Institut Supérieur Pédagogique, Kikwit, July 1983, xerox of selected pages.

Mwabila, Malela. Travail et Travailleurs au Zaïre: Essai sur la Conscience Ouvrière du Prolétariat Urbain de Lubumbashi, Presses Universitaires du Zaïre, Kinshasa, 1979.

Ntambwe, Katshay Tshilunga. "Le 'Likelemba' et le 'Muziki' à Kinshasa: Nature et Problèmes Socio-Juridiques en Droit Privé Zaïrois", Zaïre-Afrique, No. 177, September 1983, pp. 431-440.

Ntambwe, Katshay Tshilunga. "Le Prêt Usuraire: Son Histoire en Général et sa Pratique dans la Société Zaïroise: A Propos de la Pratique dite 'Banque Lambert'", Zaïre-Afrique, xeroxed, no date.

Saint Moulin, Léon de. "Histoire des Villes du Zaïre: Notions et Perspectives Fondamentales", Etudes d'Histoire Africaine VI (1974), pp. 137-167.

Saint Moulin, Léon de. "Les Villes et le Développement Economique du Zaïre", from Jens Peter Breitengross (ed.), Planification et Développement Economique au Zaïre, Deutsches Institut für Afrika-Forschung, Hamburg, 1974, pp. 63-74.

Saint Moulin, Léon de. "Perspectives de la Croissance Urbaine au Zaïre", Zaïre-Afrique, No. 111, January 1977.

Sakibobo, Asaana N'Kas. "Etude Géographique du Quartier Bongisa, Zone de Lukolela", Geography thesis for Institut Supérieur Pédagogique, Kikwit, July 1983, xerox of selected pages.

Sous-Division de l'Enseignement Primaire et Secondaire, Kikwit. "Statistiques Scolaires 1983".

Verhaegen, Benoit (ed.). Kisangani 1876-1976: Histoire d'une Ville, Tome I: La Population, CRIDE (Centre de Recherches Interdisciplinaires pour le Développement de l'Education), Presses Universitaires du Zaïre, Kinshasa, 1975.

Transportation

Baudoin, J. "Note de Conjoncture No. 79: Relative à la Traversée du Zaïre par la Trans-Africaine", Office des Routes, Département des Travaux Publics et de l'Aménagement du Territoire, République du Zaïre, 1983.

BCEOM (Bureau Central d'Etudes pour les Equipements d'Outre-Mer). "Amélioration de la Voie Nationale Zaïroise: 1ère Partie - La Demande de Transport", Financed by French Aid for GEEP, Département des Transports et Communications, Zaïre, April 1980.

BCEOM. "Amélioration de la Voie Nationale Zaïroise: 2ème Partie - Voie Nationale - Les Modes de Transport et les Connexions entre Modes", April 1980.

BCEOM. "Amélioration de la Voie Nationale Zaïroise: 3ème Partie - Scénarios Etude Economique", April 1980.

BCEOM. "Amélioration de la Voie Nationale Zaïroise: Résumé et Conclusions", GEEP/Département des Transports et Communications/Bureau du Commissaire d'Etat, April 1980.

BCEOM. Régie des Voies Fluviales: Rapport de Mission, study for the G.E.E.P. (Groupe d'Etudes Economie et Planification), Département des Transports et Communications, Republic of Zaïre, financed by French Bilateral Aid, 1981.

Cardwell, Lucy and James McCabe . "Transport Cost and other Determinants of Employment in Rural Zaïre", USAID Research Contract CSD-2492, no date but based on 1970 Zaïre Agricultural Census data.

Dakahudyno, Maketa and Dormont. "Investissements Publics dans le Secteur des Tranports 1972-76", GEEP/Département des Transports et Communications, Kinshasa, August 1979.

Dakahudyno, Wakale. "Endettement Extérieur du Secteur des Transports et Communications au 31 Décembre 1981", GEEP/Département des Transports et Communications, Kinshasa, April 1983.

Dakahudyno, Wakale. "Tableau Synoptique de l'Endettement des Organismes du Secteur des Transports et Communications (Suivant 31 décembre 1981)", GEEP/Département des Transports et Communications, Kinshasa, April 1983.

"Discours Prononcé par le Professeur Adebayo Adedeji, Sous-Secrétaire Général des Nations Unies et Secrétaire Exécutif de la Commission Economique pour l'Afrique, à l'Occasion de la Séance d'Ouverture de la Table-Ronde pour le Financement des Projets Concernant le Désenclavement des Régions Sud et Est du Zaïre", Kinshasa, June 28, 1983.

GEEP (Groupe d'Etudes Economie et Planification). "Annuaire Statistique des Transports Fluviaux en République du Zaïre (1970-1977)", Département des Transports et Communications, December 1978.

GEEP. "Etude du Secteur Privé dans le Domaine du Transport des Marchandises au Zaïre: Termes de Référence", 1983.

Madibwila, Kibwila. "Rapport d'Exécution du Programme d'Investissements Publics 1981-83", secteur sous tutelle du Département des Transports et Communications, June 1983.

Mupingonayi, Kadiakuidi. "Le Rôle des Ports dans les Mécanismes Généraux de l'Economie (Cas du Zaïre)", Cahiers Economiques et Sociaux Vol. XII No. 1, 1974, pp. 113-125.

ONATRA (Office National des Transports). "Horaires du Service de Remorquage 3ème Trimestre 1983", for all river freight routes in Zaïre.

ONATRA. "Rapport d'Activité: Exercice 1981", Office National des Transports, Kinshasa, 1981.

ONATRA. "Rapport Annuel de la Sous-Direction Mouvement et Trafic: Année 1982". River freight tonnages loaded and unloaded at all ports.

ONATRA. "Statistiques de Tonnage de Marchandises Transportées pour les Escales de Panu, Mangai, Yuki, and Dibaya-Lubwe sur Kasai", 1974-82 statistics.

ONPV (Office National des Produits Vivriers). "La Commercialisation des Produits Vivriers: Schéma d'Intervention", 1983.

"Projet de Rapport" de la Table-Ronde sur les Problèmes Posés par le Transport de Transit au Zaïre, minutes of the Economic Commission for Africa meeting held June 28-29, 1983 in Kinshasa, 33 pp.

SNCZ (Société Nationale des Chemins de Fer Zaïrois), Rapport du Conseil d'Administration, Situation de la S.N.C.Z. et Activités durant l'Exercice 1981.

Tshimpe, M. Ditumbulé. "Une Méthode pour Evaluer une Route Rurale" 1er Séminaire National sur le Développement Rural au Zaïre, May 8-13, 1978.

U.N.E.C.A. (Economic Commission for Africa). "Table-Ronde de Kinshasa: Tableau Récapitulatif en Termes Financiers du Programme Présenté", presented at Kinshasa June 1983 E.C.A. Roundtable on Transport in Zaïre.

U.N.E.C.A. "Round-Table on the Financing of Projects for Opening Up the Land-locked Southern and Eastern Regions of Zaïre, Volume I: General Presentation and Summary of the Projects Presented", Kinshasa, June 1983, 33 pp.

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ECONOMIC

ANEZA (Association Nationale des Entreprises du Zaïre). "Circulaire d'Information", Nos. 4/83, 7/83, 8/83, 9/83; Kinshasa; April, July, August and September, 1978.

ANEZA. List of Members "Répartition par Activité", Kinshasa, Feb. 28, 1980. This is the most up-to-date list of employers who are National Chamber of Commerce members available in Kinshasa. Notes on the back page were from other ANEZA files, and include recent new members from Kikwit. Comparison of Kikwit members in this national list with a membership list collected in Kikwit indicates that Kinshasa data is quite fragmentary, or uncompiled. A new membership inventory was reportedly in process, to be published spring 1984 in Kinshasa.

"Assemblée Générale de l'ANEZA 1983", l'Entrepreneur Nos. 17-18, May 1983.

Banque du Zaïre. "Evolution de l'Economie Zaïroise en 1982", Kinshasa, March 7, 1982. Reviews economic changes since 1976.

Banque du Zaïre. Rapport Annuel 1981.

Bongay, Mpekesa. "L'Agriculture et le Commerce Extérieur au Zaïre", Cahiers Economiques et Sociaux, Vol. XII No. 1, 1974, pp. 47-85.

Cahiers Economiques et Sociaux. Vol. X 1972, Vol. XI No. 2/3 1973, Vol. XII No. 2 1974, Vol. XII No. 4 1976, Vol. XV No. 2 1977, Vol. XV No. 3 1977. Xerox of Cahier Vol. V No. 3 Oct. 1967. Published by IRES (Institut de Recherches Economiques et Sociales), Faculté des Sciences Economiques et Financières, Presses Universitaires du Zaïre, Kinshasa campus.

Division Régionale du Plan/Kivu, Commissaire Général au Plan. "Synthèse Economique Régionale: 1er trimestre 1982", Bukavu, August 1982.

Division Régionale du Plan/Kivu, Commissariat Général au Plan. "Synthèse Economique Régionale: 2ème Trimestre 1982", Bukavu, October 1982.

"Evolution de l'Economie Zaïroise en Vingt Ans d'Indépendance", Cahiers Economiques et Sociaux Vol. XX No. 1/2, Jan./June 1982. Papers from a June 1981 colloquium in Kinshasa, IRES, Presses Universitaires du Zaïre.

Groupe de Travail du Conseil Exécutif-ONUDI, Département de l'Economie Nationale et de l'Industrie. "Projet pour les P.M.E. (Petites et Moyennes Entreprises)", Kinshasa, October 1981.

INS (Institut National de la Statistique). "Projet de Création d'un Centre de Formation Statistique et d'Economie Appliquée au Sein de l'Institut Supérieur de Commerce à Kinshasa", September 1983.

INS. "Résultats Statistiques (1979): Recensement des Entreprises 1980", Projet Recensement National des Entreprises with Canadian Cooperation, Département du Plan, Zaïre, July 1983.

Kayitenkore, wa Sangano. L'Industrie de la Construction et le Développement, Presses Universitaires du Zaïre, Kinshasa, 1978.

Le Portefeuille: Revue des Entreprises et du Département du Portefeuille, No. 14 (July 1980), No. 15 (March 1982), No. 16 (Jan. 1983).

Mulumba, Lukoji. "Investissements et Développement Economique au Zaïre: Quelques Réflexions", Zaïre-Afrique No. 178, Oct. 1983, pp. 471-501.

Muteba, Ayumba. "Rapport sur les Missions Effectuées à Kinshasa par Mme Paretti... dans le Cadre du Programme de Formation Statistique pour l'Afrique pour le Compte de la Commission Economique des Nations Unies pour l'Afrique", Institut National de la Statistique (INS), December 1982.

Office National des Produits Vivriers (ONPV). "République du Zaïre Mission de Préparation: Fourniture d'Intrants Agricoles et Aide à la Commercialisation des Produits Vivriers - Restructuration des Circuits Commerciaux", 1983. Annex No. 4 from a larger report, but main citation not available. Obtained from M. Thorigné, FAO Technical Assistant to ONPV.

Office National des Produits Vivriers (ONPV). "Tableaux: Importance des Productions Vivrières Avril 1982", and "Excédents et Déficits Vivriers 1982", xerox of selected pages from Annex 3 of a larger report, Kinshasa, 1983.

Office de Promotion des Petites et Moyennes Entreprises Zaïroises/Assistance Technique Française A.F.C.A. "Petites et Moyennes Entreprises de Production de Kinshasa - Rapport Général", 1er semestre 1973.

"Ouverture d'une Coopérative d'Epargne et de Crédit C.B.Z.O. à Binza-Ozone", Elima, Kinshasa, November 4, 1983, p.5.

Projet Recensement National des Entreprises/Commissariat Général au Plan/INS. "Recensement des Entreprises: Guide de Déclaration", 1982 survey form.

Projet Recensement National des Entreprises/Commissariat Général au Plan/INS. "Répertoire des Etablissements Recensés: Annexe 1 - Recensement des Entreprises 1980", April 1982.

Projet Recensement National des Entreprises/Commissariat Général au Plan/INS. "Répartition des Biens Produits au Zaïre: Annexe 2 - Recensement des Entreprises 1980", May 1982.

Projet Recensement National des Entreprises/Commissariat Général au Plan/INS. "Recensement des Entreprises: Etablissements Agricoles, Miniers, et Manufacturiers", Survey form for all future years, collected 1983.

Stolper, Wolfgang. "Report to Director Hermon Davis on Recent Developments and Prospects of Zaïre", Kinshasa, November/December 1973.

Thorigné, J.H et al. "Mission de Consultation sur la Commercialisation dans le Kwilu", rapport préparé à l'attention du Projet de Développement Rural Intégré du Kwilu, ZAI 78/001, projet d'assistance à ONPV, January 1981.

Unité Régionale de Planification et de Développement de Bandundu. "Fiche Technique - Région de Bandundu", Commissariat Général au Plan, November 1981.

Williams, T.T. "Summary of Zaïre's Agricultural Sector", Southern University Unemployment - Under Employment Institute, Series No. 154-76, Baton Rouge, Louisiana, 1976.

World Bank. "Zaïre Agriculture and Rural Development Sector Memorandum", no date but seems to be 1981 or after.

World Bank. "Zaïre Economic Memorandum: Recent Economic and Sectoral Developments and Current Issues, Executive Summary", December 30, 1982.

World Bank. Zaïre Economic Memorandum: Recent Economic and Sectoral Developments and Current Issues, Volume I: Main Report, Washington D.C., December 30, 1982.

World Bank. Zaïre Economic Memorandum: Recent Economic and Sectoral Developments and Current Issues, Volume II: Sectoral Developments and Issues, Washington D.C., December 30, 1982.

World Bank. "Zaïre Economic Memorandum: Recent Economic Developments and the Path to Recovery", Washington D.C., May 20, 1981.

"Zaïre". Africa South of the Sahara, 1982-83, Twelfth Edition, Europa Publications Limited, London, 1982, pp. 1139-1178.

ZOFI (Zone Franche d'Inga). "Organic Texts Concerning the Free Zone of Inga", February 21, 1983.

ZOFI (Zone Franche d'Inga). "Projet de Création de la Zone Franche Industrielle d'Inga: Premier Rapport Préliminaire", July 11, 1980.

ZOFI (Zone Franche d'Inga). "Régime de Zone Franche d'Inga", Ordonnance - Loi No. 81-010 du 2 avril 1981.

ENERGY

Losseau, A. "Energies et Tiers-Monde: Un Cas Typique au Zaïre: Kikwit", draft article proposed for publication in Zaïre-Afrique, September 2, 1983.

Malu, wa Kalenga. "Implication Energétique de l'Exode Rural et de l'Explosion Démographique en Afrique au Sud du Sahara", Service Présidentiel d'Etudes, Kinshasa, March 1983.

Orszagh, J. "Rapport de Mission pour l'Evaluation des Potentialités en Matière d'Energies Renouvelables: Projets A.C.C.T. Bandundu et Bas-Zaïre", May 4-16, 1983, mission report.

Service Présidentiel d'Etudes. "Importance de l'Aménagement Hydro-Electrique de Petites Chutes d'Eau dans le Développement Rural", paper delivered at First National Seminar on Rural Development in Zaïre, May 8-15, 1978 in Kinshasa.

DEMOGRAPHY

Boute, Joseph and Léon de Saint Moulin. "Perspectives Démographiques Régicnales, 1975-1985", Département du Plan, République du Zaïre, 1978.

Boute, Joseph. "La Population du Zaïre d'Ici 1985", extract from Zaïre-Afrique, January 1979, pp. 5-13.

Brébels, Théo; Willy Van Impe; and Père Verhaegen. "Retour au Village: Résultats d'une Enquête sur 1,000 Jeunes Gens de la Paroisse de Djuma", xerox of hand-written draft anaiysis of a 1981 survey. These additional background notes and tables from the Djuma survey by Théo Brébels and Willy Van Impe (reported in Agripromo 1/83) were obtained from Père Verhaegen, CEPAS, Kinshasa.

INS. "Mouvement de la Population du Zaïre par Région de 1970 à 1980". It is surprising how many statistics are not available. Only four years have complete population data during this period, aggregated as of fall 1983.

INS/Direction Régionale du Kivu. "Recensement de la Population Zaïroise, 1981, Kivu", hand-written administrative census population figures.

INS/Division Régionale de l'Equateur. "Evolution de la Population de la Région de l'Equateur par Zone, 1980", hand-written administrative population census.

Père Verhaegen. "L'Exode Rural au Zaïre", unpublished paper summarizing INADES student surveys in Zaïre, CEPAS, Kinshasa, no date but about 1982.

Saint Moulin, Léon de. "Atlas des Collectivités du Zaïre", Presses Universitaires du Zaïre, Kinshasa, 1976.

"Une Enquête d'Agripromo: Les Conditions et les Conséquences du Retour à la Terre", et "Une Enquête au Zaïre: Les Retours au Village dans la Région du Kwilu", Agripromo No. 40, January 1983, pp. 8-12.

UNHCR. "Zaïre" chapter from Africa-wide program document A/AC. 96/620 on refugee movements and assistance programs, pp. 172-185, 1983.

HEALTH

CEPLANUT (Centre National de Planification de Nutrition Humaine). "Résultats de l'Enquête Nutritionnelle Réalisée dans la Région de Bandundu (Avril-Mai 1983)", Report No. 38, Kinshasa.

SANRU/CONF, Document 8. "Principes de Renforcement de l'Implantation des Soins de Santé Primaires en République du Zaïre", Kinshasa, March 2, 1983.

USAID

Blakely, Dr. Thomas. "North Shaba Rural Development Project", extract from a sociological analysis paper prepared for USAID Zaïre, no date but post-1979.

Driscoll, John. "USAID Urban Strategy in Sub-Saharan Africa: Overview and Five Country Profiles", USAID Order No. OTR-1406-0-00-1197-00, November 1982.

Osmond, Deanna and Tshishiku, Kabundi. "Trip Report on Visit to the Sub-Regions of Kikwit and Kwilu in Bandundu", USAID Zaïre, October 1982.

Reid, Elizabeth. "Socio-Economic Base-Line Survey for the Kwilu Road Building Component of the Agricultural Marketing Development Project: (660-0028)", USAID Zaïre, May 1982.

Rondinelli, Dennis A. "The Potential of Secondary Cities in Facilitating Deconcentrated Urbanization in Africa", research funded by USAID Science and Technology Bureau, Regional and Rural Development Division, paper for publication in African Urban Studies in 1983. (Michael Lippe has the paper).

Rondinelli, Dennis and Kenneth Ruddle. "Fonctions Urbaines dans le Développement Rural: Analyse de la Politique de Développement Spatial Intégré", Office of Urban Development/Technical Assistance Bureau, USAID, 1976.

Science and Technology Division/Library of Congress and U.S. Man and the Biosphere Secretariat/Dept. of State. "Phase 1: Environmental Profile of the Republic of Zaïre", Washington D.C., June 1980; 53 pp. plus annexes.

Trott, Mike and Tshishiku Kabundi. "Trip Report - Bas-Zaïre - December 14-22, 1982".

U.S. Government. Area Handbook for the Democratic Republic of the Congo (Congo Kinshasa), 1971.

USAID Zaïre. "Agricultural Marketing Development", Project Paper, (660-0028), September 14, 1981.

USAID Zaïre. "Annual Budget Submission: FY 1985", June 1983.

USAID Zaïre. "Country Development Strategy Statement: FY 1985", Zaïre, January 1983.

USAID Zaïre. "Country Development Strategy Statement for Zaïre", February 1983. (Draft)

USAID Zaïre. "Country Development Strategy Statement for Zaïre", January 1984.

USAID Zaïre. "Project Evaluation Summary of Agricultural Marketing Development Projects 660-0026 and 660-0028", November 1983.

USAID Zaïre. "Project Evaluation Summary of North Shaba Rural Development", June 1982.

USAID Zaïre. "Project Paper for Loan 660-T-026 for Agricultural Marketing Development, Kwilu Sub-Region", no date.

USAID Zaïre. "Site Selection Survey - Area Development Project (660-0102)", no date.

USAID Zaïre. "The U.S. Economic Assistance Program for the Republic of Zaïre", Kinshasa, January 1983.

Waskin, L.S. "Summary Trip Reports: Agriculture Marketing Development Project" (660-T-026), DEO, 2/2/83.

GENERAL INSTITUTIONAL COMPETENCE

CEPAS. "Projets et Actions pour le Développement", inventory of private voluntary organization projects in Zaïre including organizations' names, addresses, and brief project descriptions by sub-regional location of activity. This is a chapter (No. 5) from a manuscript being prepared for publication (collected in fall 1983).

Cahiers Economiques et Sociaux. "Index des Volumes I à XI, 1962-73", xerox, probably reproduced from a 1974 issue of the Cahiers. Inventory of articles published over this period by author.

Diocèse de Kikwit, Bureau Diocésain pour le Développement. "Note d'Information", Statistics on Catholic development projects based in Kikwit, March 1983.

Failly, Didier de. "Technologies Appropriées au Zaïre: Un Premier Inventaire", CEPAS, Kinshasa, reprinted from Zaïre-Afrique No. 167, September 1982.

"Gecamines Rapports Annuels", 1967-81. Earlier issues listed GECOMINES (1967-70), stands for La Générale des Carrières et Mines.

"Références du S.P.E.", describes past work completed by the Service Présidentiel d'Etudes in Zaïre up to 1980, 52 pp.

RURAL DEVELOPMENT

The following lists the papers which were presented at the 1er Séminaire National sur le Développement Rural au Zaïre, Département du Développement Rural, Kinshasa, May 8-15, 1978:

Assumani, Busanya Lukili. "Discours Prononcé ... à la Clôture du 1er Séminaire National sur le Développement Rural".

Bonani, Bukoka. "Quelques Considérations sur les Projets de Développement Rural Intégré au Zaïre de Cas du Projet Nord-Shaba".

Kerkhofs, W. "Le Stockage et l'Evacuation des Produits Agricoles".

Kirschbaum, A. "L'Organisation et la Gestion des Coopératives en Milieu Rural".

La Division de la Conservation de la Nature et Gestion des Ressources Naturelles. "L'Importance de l'Eau dans le Cadre du Développement Rural".

N'Kashama, Kadima. "Expérience du C.E.P.S.E. en Matière de Développement Intégré en Milieu Rural".

"Rapport de la Commission Politico-Administrative du 1er Séminaire National du Développement Tenu à Kinshasa du 8 au 13 Mai 1978".

"Rapport Final: Premier Séminaire National sur le Développement Rural au Zaïre, Kinshasa, du 8 au 15 Mai 1978".

Service Présidentiel d'Etudes. "Quelques Considérations sur les Projets de Développement Rural Intégré au Zaïre".

Teunissen, Gerardus and Mr. Cavalli. "La Conception et l'Exécution des Projets de Développement Rural".

MAPS

BEAU/Institut Géographique du Zaïre. Atlas de Kinshasa, 1974.

Bureau d'Etudes V.T. "ONATRA Voies Fluviales", 1983.

"Carte Ecclésiastique de Kikwit", Institut Géographique du Zaïre, Région de Bandundu, République du Zaïre.

"Carte Médicale: Ville de Kikwit", Institut Géographique du Zaïre, Région de Bandundu, République du Zaïre. Two copies. Public and private primary and secondary schools have been manually added to one copy.

"Carte Routière et Administrative de la Région de Bandundu", 1/1,000,000 scale, Institut Géographique du Zaïre, September, 1972.

"Ethnies" in Zaïre, Jeune Afrique Atlas, p. 29 (no date, probably from most recent Atlas of Zaïre available in 1983).

"Kikwit Topographic Base Maps" from aerial photos of July 1954, 9 quadrants, 1/4000 scale. Ministère de Travaux Publics, Service de Topographie et de Photogrammétrie.

"Plan de la Ville de Kinshasa", 1/50,000 scale, Institut Géographique, Département de la Défense Nationale.

"Plan Synthétique: Ville de Kikwit", Institut Géographique du Zaïre, Région de Bandundu, République du Zaïre.

"Zone de Bulungu", 1/200,000 scale, Institut Géographique du Zaïre, September 1972.

III. SECONDARY CITY CASE STUDY: KIKWIT

TABLE OF CONTENTS: ZAIRE RURAL-URBAN PROFILE

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Introduction

Kikwit, currently the commercial headquarters of Bandundu Region, and formerly its capital before 1970, was chosen by AID/Kinshasa and the RHUDO in Abidjan as the site for a case study of secondary city functions which facilitate or constrain rural development. The RHUDO consultant, Deborah Zubow Prindle, was accompanied on a data collection mission in Kikwit by Citoyen Mbuluku Nsaya, urban planner from the BEAU (Bureau des Etudes d'Aménagement Urbain) in Kinshasa, from October 28 - November 4, 1983.

The aim of the mission was to analyze, within these time constraints, the population structure and socio-economic dynamics of Kikwit and its institutional base, to particularly answer the following questions:

(1) What are the dynamics of the rural-urban population flows between Kikwit and its hinterland?

(2) What are the economic activities of Kikwit, and how do they serve the rural area?

(3) What social services are centralized in Kikwit and what are their radii of influence on surrounding rural communities?

(4) How are Kikwit-based governmental agencies and state-affiliated services currently operating, and what projects could improve their outreach towards meeting rural needs?

(5) How are private voluntary agencies currently based in Kikwit operating, and could proposals be advanced for improving their use of the city as a rural service and training setting?

Four sources of data were used:

(1) Interviews with community and business leaders, government agencies, private voluntary organizations, and social service personnel (hospitals, schools, and private business sector leaders - see list in Annex I).

(2) Review of demographic, educational, economic and health statistics, and maps available from these organizations.

(3) Design of an original household survey form to collect more comprehensive data on household composition, educational and economic activities, and interaction with rural areas. (See Annexes II and III). The survey was administered to a geographically and economically stratified random sample of 76 households by six CEPLANUT survey assistants over a two day period, through the courtesy of AID's CEPLANUT Administrator, Ms. Sylvie Etian, who volunteered their services to both facilitate our mission and to diversify CEPLANUT's data base and survey skills. This sample was brought back to Abidjan for coding and a limited amount of analysis, through DEO Kinshasa support.

(4) 1982 and 1983 student theses prepared by final year geography students at the Institut Supérieur Pédagogique (ISP), Kikwit, were reviewed, and several of these documents which focussed on rural-urban migration to Kikwit, urban artisanal activities, and port operation, were borrowed for intensive study during the mission.

A. Physical Structure

The Kwilu sub-region, in which Kikwit is located, occupies the northern section of the Kalahari Sands plateaux of the Kwango-Kwilu, a slightly rolling area varying from 600 m - 1,000 m in altitude, which is laced by a high density of Kasai River tributaries (flowing from south to north). The extremely sandy substrate, the high drainage density, and the rise in altitude above the swampy low lying "cuvette centrale" all are major determinants of both the high density of urbanization in the region and both its inter-urban development bottlenecks and opportunities. The belt of sands, which stretches from eastern Bas Zaïre through the Kasai(s) and north Shaba to Lake Tanganyika (in total, a broad swath through south central Zaïre), creates an absence of road building materials (gravels and laterite) and requires costly to build and logistically difficult to maintain outlays for cement stabilization of long distance truck routes.

The administrative hierarchy of urban functions is shown in Table 1. The Kwilu sub-region is comprised of five zones (Bagata, Bulungu, Idiofa, Masi-Manimba and Gungu). (See Figure 1). Though national political interests have displaced wider territorial administrative functions from Kikwit to Bandundu (at the regional level) and to Bulungu (for the sub-region), Kikwit is administratively an autonomous urban center, with its municipal government headed by a Commissaire Sous-Régional Urbain.

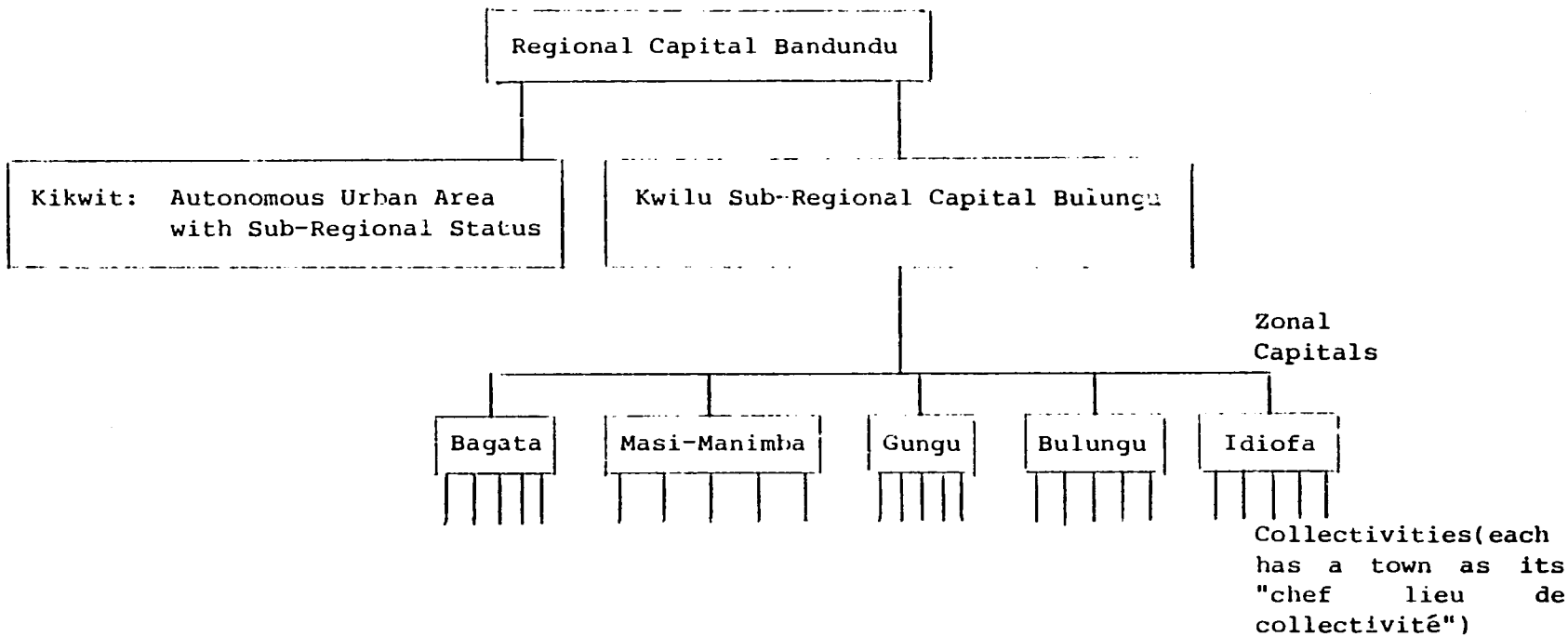
Reviewing its most recent urban legal boundaries, Kikwit covers 92 square kilometers, of which 80 km^2 are currently developped, according to the Kikwit Cadastre (land survey) office, which maintains the most up-to-date parcel map.[1] Commissaire Urbain Sambia feels this site is too restrictive, and hopes to be able to expand the urban boundaries. Since Kikwit is predominantly an agricultural city, residents have obtained informal agreements with the surrounding collectivities of Imbongo, Kipuka and Kwenge, in order to gain access to fields for cultivation.

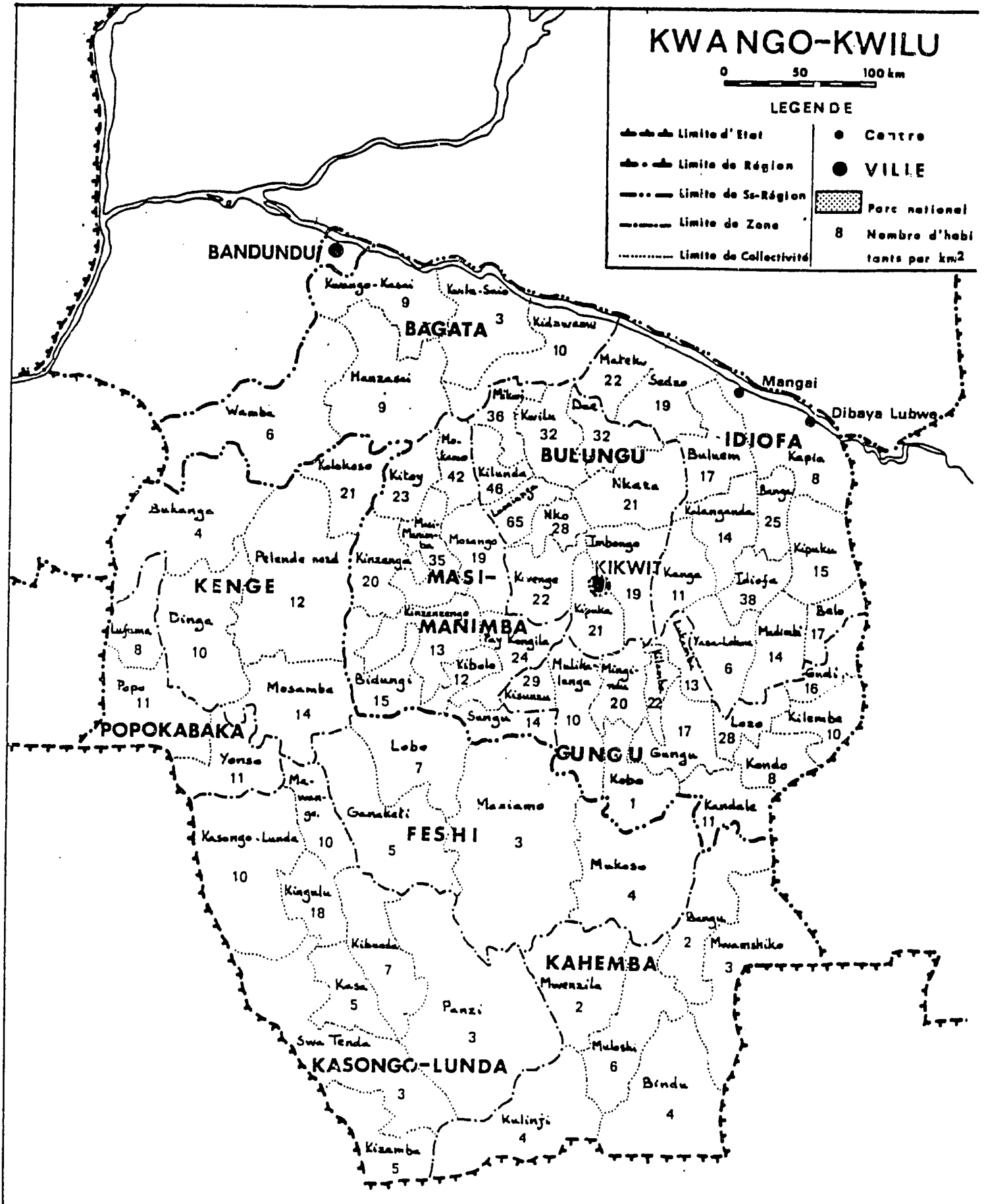
Kikwit's site is constrained by rivers on almost all of its boundaries. The Nzinda runs along the city's northwestern edge and empties into the Kwilu River underneath the paved road from Kinshasa which enters Kikwit from the north.

1. A print of this map was purchased during the RHUDO field reconnaissance, and has been retraced as a reproducable base map, now available at the BEAU office in Kinshasa.

TABLE 1

KWILU SUB-REGION
HIERARCHY OF ADMINISTRATIVE FUNCTIONS OF URBAN PLACES




KWANGO-KWILU
0 50 100 km
LEGENDE
Limite d'Etat
Limite de Région
Limite de Sa-Région
Limite de Zone
Limite de Collectivité
Centre
VILLE
Parc national
8 Nombre d'habitants par km2
BANDUNDU
BAGATA
BULUNGU
IDIOFA
KIKWIT
MASI-MANIMBA
KENGE
GUNGU
FESHI
POPOKABAKA
KAHEMBA
KASONGO-LUNDA
Mangai
Dibaya Lubwe
Wamba
Bukanga
Petende nord
Kinzenga
Kolokese
Kitoy
Mosango
Kilunda
Nkata
Nko
Imbongo
Kenga
Idiofa
Kapia
Buluem
Kipuku
Bele
Madiadi
Gindi
Kilemba
Loze
Kando
Kandale
Gungu
Kobo
Lobo
Bidungi
Sangu
Kibolo
Kisuusu
Mosamba
Pepa
Dinga
Lufuma
Yenso
Kasongo-Lunda
Kingulu
Kibunda
Kasa
Panzi
Swa Tenda
Kizamba
Kulinji
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Malika-langa
Pay Kangila
Kinzenzenge
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Kalanganda
Bunga
Kikwit
Kwenge
Kipuku
Mingi-ndi
Malika-langa
Pay Kangila
Kinzenzenge
Mo-kamba
Mwi-Mwamba

FIGURE 1

Although the city legally includes land on the east bank of the Kwilu River, most of this ground comprises the Sacré Coeur Mission, site of a large complex of Catholic schools, and the mission's obsolete oil palm plantations. In fact though not legally, the Kwilu River bounds the urban area on its northern and eastern edges. In the vicinity of the port, the Kwilu is about 150 meters wide, varying in depth from 10 m to less than 2 m. The river system on Kikwit's southern edge includes the Misengi and Ndangu tributaries which merge into the Lukemi River and thereafter empty into the Kwilu. Only towards the southwest does Kikwit remain on relatively flat land in its sprawl along the Gungu Road where Kazamba, the most recently settled of Kikwit's four urban zones, continues its rapid expansion unhampered by the slopes descending to the boundary rivers. (See Figure 2). The Lunia River runs from southwest to northeast through the center of the city, virtually paralleling the original road from Kinshasa, Avenue Mobutu. This road was the axis for Kikwit's original growth from its 1910 site as a port and administration post on the Kwilu River (the "Ville Basse" area in which the largest wholesale, luxury retail, and warehouse establishments, and former European residences are still concentrated). Because of the steep slopes of the Lunia River in its center, Kikwit is somewhat "doughnut-shaped", as the officially recognized (and most intensively developped) residential areas follow the relatively flat uplands. Erosional hazards are a major concern of public authorities. An I.S.P. student survey by Citoyen Kidiata noted six ravines in the Kazamba zone, and 11 in Lukemi, for a total of 17 ravines in these two zones alone. The developped urban area includes many slopes which are illegally occupied, though Citoyen Sambia, who has been the Commissaire Urbain for the past 18 months, has taken some token steps to remove families from one hazardous area. Though initially unpopular, his decision to demolish ten houses on the slope between the Plateau and the Ville Basse commercial center has been endorsed by the Conseil de Ville, and these families have been relocated to safe parcels.

The water quality of these small intra-urban rivers is not good, and the silty content of the Lukemi, for instance, provides a sharp reddish color contrast with the clearer Kwilu waters, as the stream empties just up river from the Regideso drinking water intake area. In the Bongisa quartier of Lukolela zone, one of the oldest indigenous cité neighborhoods (and therefore one of the best equipped in public Regideso water services), both public fountains have been dysfunctional for years. In July 1983, only 24% of the 1191 parcels in Bongisa had piped water, and only 4% were connected to city (SNEL) electricity. The remaining residents were forced to

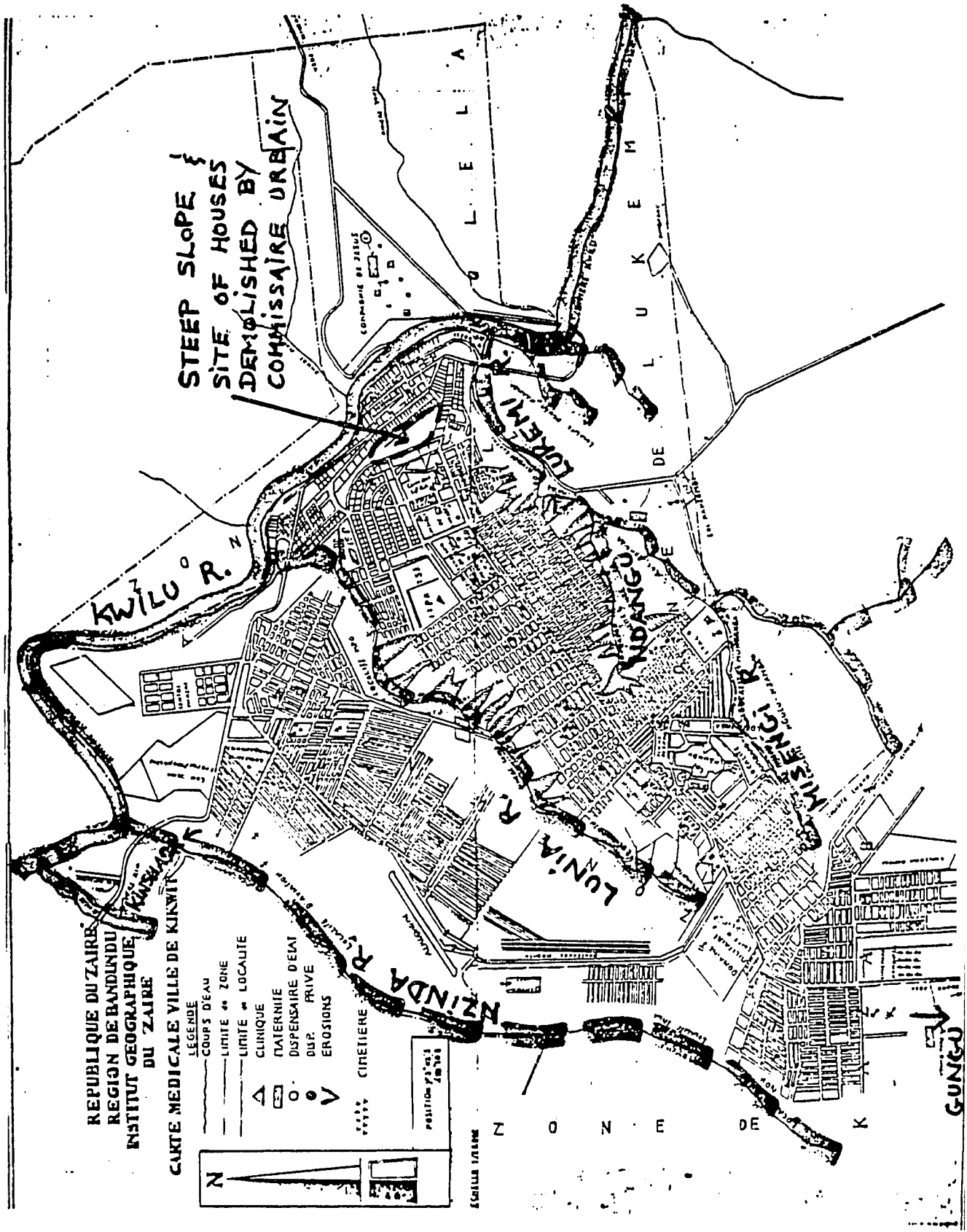


FIGURE 2

KIKWIT RIVERS CREATING EROSIONAL AND SLOPE CONSTRAINTS TO DEVELOPMENT

either pay 10-15 Z/month (before devaluation) to buy water from those who did have taps on their parcels, or to descend the steep ravines to fill buckets from one of the four major springs along the Lukemi River (usually the work of women and children). Water sales are profitable to those lucky enough to have control of taps, since they are probably receiving at least 100Z/month from sales, while only paying Regideso 40Z-60Z/month. More recently settled neighborhoods, such as Kazamba and Kikwit III, have almost no public services (drainage works, water, or electricity).

B. Historical Determinants

All of the elements which were the original determinants of Kikwit's choice as a site for urbanization remain major factors in its current economy and its future prospects for urban growth and functions.

These elements are:

- its location at the terminus of southern navigation on the Kwilu River, which generated its primacy as a port for exploitation of the interior of Bandundu region. Warehousing and trading functions emerged from its key transport and service role, fueled by the exportation of plantation palm oil production;

- its early attraction of religious institutions which used Kikwit as a geographical base for proselytization in the interior, as a means of attracting and holding converts;

- its strategic geographical location on the river system, at the center of the most densely populated area of Bandundu, dictated its choice as a site for administrative and military control by colonial authorities, and facilitated its use as a relay point for the further extension of this communication network.

According to oral tradition, the Pindi tribe were the original inhabitants of the site of Kikwit, though prior to the arrival of European colonial influence, the Mbala had already established the territorial dominance which they retain at the present time. These Mbala had migrated from the upper Kwango River valley, themselves chased by the Lunda tribe, and had completed their infiltration by the end of the 18th century, primarily through forcing the less numerous Pindi to cede land to them to settle disputes which emerged over time. The Pindi retreated to the right bank of the Kwilu and the left bank of the Kwango Rivers.

Today Kikwit is ethnically diverse, since many Bandundu tribes have been attracted by its urban commercial opportunities, however, traditional land rights over the rapidly developing urban fringe remain in Mbala hands, with important implications for the lack of State control over the squatter housing on erosion-prone slopes. The city takes its name from a great Mbala chief, and the earlier village of Kikwit-Bundi which was named after him on the Kwilu's right bank.

Commercial activities began through the use of Kikwit's site, a crossroads for the southern routes, as a trade post for the exchange of salt and cotton cloth for rubber. This private sector trade was initiated by the arrival of an S.A.B. (Société Anonyme Belge) river expedition under Major Parminter in 1893, which was exploring the Kwilu for a site, and was blocked from further penetration by the rapids. Within 15 years, the Jesuits had arrived, establishing the Sacré Coeur Mission at its present location on the right bank of the Kwilu in 1912, and a church on the left bank a year later. Kikwit's role as an educational center (a Jesuit specialty) had begun.

The Portuguese commercial influence began in 1921 with the arrival of a Portuguese "baleinière" (a shallow boat) at Kikwit's site, and its penetration a further 15 km south as far as Kikongo. Within another eight years, baleinières had succeeded in reaching even further south, and traders were attracted in greater numbers. Among the first five trading companies, three were Portuguese, and only one was Belgian. The Portuguese commercial presence remained strong up until 1974 "Zaïrianization", and continues to be reflected in the present day names of enterprises. Though several Portuguese traders resumed control of their businesses during the '76 "retrocession", some resold to Zaïrians shortly thereafter.

According to the Kikwit branch of ANEZA, the national employers' association in which membership is "obligatory", only ten of the 84 businesses locally registered with them are expatriate-run at the present time. Of these ten, seven are Portuguese, one is mixed Portuguese and Belgian, one Pakistani, and one Belgian, showing a long term commitment of some Portuguese entrepreneurs to the city. Some of these families had intermarried with Zaïrians over time, even taking local names, as in the case of one Cardoso brother, who earned the nickname "Mabobo" from the scars left by his childhood case of German measles, and adopted it both for himself and as the brand name for his coffee.

Though colonial administrative functions were initially based in Bulungu, the earlier terminus of navigation, as palm oil became increasingly important the Huilléries du Congo Belge (forerunner of modern day PLZ wnich is still a major producer in this sector) set up their depots in Kikwit.

Commercial establishments were installed on the low terrace near the mouth of the Lukemie River on the Kwilu River, in the area still known as the "Ville Basse" today. Workers' housing was built in separate neighborhoods away from the Ville Basse European residences, beginning in 1926 with the completion of

the first African cité. Between 1930-60 urban growth extended the cités as far as the Nzinda valley to the north, and the Lukemie Valley on the south, after which time the city continued to spread west along the former main road to Kinshasa (now known as Avenue Mobutu).

The stages in the waxing of Kikwit's role as an administrative center began in 1935 when it replaced Banningville (now known as Bandundu) as head of the district. As western extensions of the city were created (the original Poto-Poto neighborhood in 1937), eastern cités were abandoned, since they were thought by the Belgians to be too close to the European area and its military camp. Many of the existing older neighborhoods were developed at this time, including from 1937-43 Wenzie (an extension of Poto-Poto south of Avenue Mobutu) and the construction of stores along this main road beyond the Protestant Mission. After 1948, this extension became known as the Bruxelle cité. Since the city was developing extensions so rapidly, an agreement with Kazamba Village was concluded, exchanging village land which was given to the city for Lukemie Valley areas. This Kazamba zone is still the most rapidly growing area of the city, and its Mbala traditional chief, Kayita Jean, continues to play a major role in land allocation.

By the time of Independance, 1960, Kikwit was administratively an "extracoutumier" center (legally outside traditional political control), and its administrator, Mbayenzo, was indigenous to the area. Over the next ten years, the city rapidly gained increased administrative functions, many of which were abruptly lost at the end of the decade. From 1962-66 Kikwit served as the headquarters of Kwilu Province, and when the three Bandundu provinces (Kwilu, Mai-Ndombe, and Kwango) were unified to form the current boundaries of Bandundu Region in 1966, Kikwit became the regional capital. This glory was relatively short-lived. By the end of 1969, the city of Bandundu had been designated as the regional capital, and functions were transferred there (along with employment) during 1970. To appease the Kikwit advocates, a 1970 law (70-035) made the city autonomous under the leadership of a "bourgmestre", and in 1973 (law 73-015) the city was given sub-regional urban status. The three former provinces are now designated as the three sub-regions which together form Bandundu Region. Though the Kikwit-based ANEZA branch administers services to its members in both Kikwit and Idiofa, including the major regional commercial interests, territorial administrative functions outside its own urban area have been lost by Kikwit.

In spite of its locational advantages, discussed above, climatic and soil factors have constrained Kikwit's development in the past, and are likely to affect its future economic prospects considerably. In comparison with other areas of Zaïre, notably Equateur (its major current competitor for national level and private sector resources), and the Kivu (traditionally the most productive agricultural area of Zaïre with its volcanic soils and the crop diversity enabled by its temperate climate), Bandundu soils are relatively infertile. Bandundu's three month dry season is also an impediment in its competition with Equateur for new palm plantation investments. The original plantations established in the Kwilu Basin by colonial commercial interests are over 30 years old, and their productivity has been declining rapidly. The aging (mainly Bapende) labor force which has traditionally specialized in climbing tall palm trees to harvest the nuts, and which is indigenous to the Bandundu region, is not being replaced by younger members of their own or other ethnic groups, since the labor is physically demanding, dangerous, and poorly paid.

A new pygmy palm variety has been developed which yields well, and attains a maximum height of only two meters, minimizing labor requirements. Large producers intend to use this variety for new plantation investments. This palm variety, however, cannot tolerate the Bandundu dry season, but has been found to be high-yielding on the richer Equateur soils, where it will also receive consistent year round rainfall. Since specialized Bandundu labor would not be required for harvesting this type of pygmy tree, a major source of Kikwit-based labor and revenue will be gradually lost, generating long term economic changes which should be addressed in Bandundu regional development project planning, especially in the credit and agricultural research sectors. ANEZA President Citoyen Kwakenda has expressed the hope that the World Bank or other donors and leaders will make credit available which would allow local entrepreneurs to purchase industrial plantations (mainly owned by PLZ), as they become obsolete. Research on the recycling potential of palm plantations for other agricultural production will be needed. Encouraged by their competitive advantage in attracting future new oil palm plantation investments, Equateur secondary cities can be expected to receive an impetus for growth from the economic multiplier effects of increased demand for transport and other services. Since Equateur is one of the most sparsely settled regions of Zaïre, labor migration from rural areas to small centers might be encouraged, or even inter-regional migration to Equateur.

C. Socio-Economic Characteristics

Kikwit is an ethnic mixture of Mbala, Yansi, Pindi, Kwese, Pende and Lunda, all of the tribes which have been historically important in its evolution, and which have been attracted by its economic, administrative, and educational activities, and the services (such as health sector institutions) which it provides. Available statistics indicate that its range of influence is mainly confined to Bandundu Region, from which most of its population, including students, is drawn. Because of this ethnic diversity, and its many decades as an "extracoutumier" center, the influence of the traditional Mbala land chiefs is confined to land allocation, and they are only called upon for other services, such as settlement of disputes, by members of their own ethnic group. Attitudinally speaking, a summary statement made in a recent oral presentation by Citoyen Masoka, a BEAU geographer who was born in Kikwit and studied the city for his University thesis, is well worth quoting, "70% of the residents of Kikwit still maintain their feet in the village, their heads in the city, and their bodies sometimes in the village and sometimes in the city".

The evolution of the population of Kikwit (see Table 2), shows a high rate of 1958-70 urban growth. Immediately preceding Independence, this was caused by the relaxation of colonial controls which discouraged high rates of rural-urban migration. Later in this period, the high growth rate was caused by the civil disturbances and rural insecurity surrounding the Mulelist Rebellion. The abrupt decline in population in 1971 is attributable to the loss of direct and indirect employment in Kikwit when regional administrative functions were transferred to Bandundu city.

Large numbers of young rural migrants are being attracted to Kikwit, producing a high ratio of dependency on adult wage-earners, typical of other Zaïrian cities. For instance, as stated earlier, 30% or more of the population of Bukavu is enrolled in school, putting tremendous strain on public revenues if services in the educational sector alone are to keep pace with exponentially increasing demand each year. The table below shows the Kikwit population figures for 1982 reported by the most recent zonal administrative census, in which 62% of the urban population was under age 18. In Kazamba, the most recently developed area, an even higher share of the population (72%) is under 18. (See Figure 3, the Zonal Map of Kikwit).

TABLE 2

EVOLUTION OF THE POPULATION OF KIKWIT[1]

YEAR	POPULATION	YEAR	POPULATION
1936	2,380	1970	119,095
1945	8,588	1971	121,784
1950	8,050	1972	93,838
1951	8,916	1973	103,003
1952	9,423	1974	117,414
1953	10,650	1975	127,706
1954	11,832	1976	133,005
1955	13,014	1977	139,192
1956	13,321	1978	141,992
1957	14,194	1979	148,042
1958	14,530	1980	153,736
1960	21,793	1981	156,370
1968	107,197	1982	157,396
1969	109,497		

1. These figures were obtained from the Institut National de Statistique, Kikwit. Figures reported by the Kikwit Commissaire Urbain 1980-1981 are slightly lower, but since both sets are thought to be under-estimates, INS statistics were used. According to the Commissaire Urbain, Kikwit's population was:

1978	148,134
1980	151,867
1981	154,360

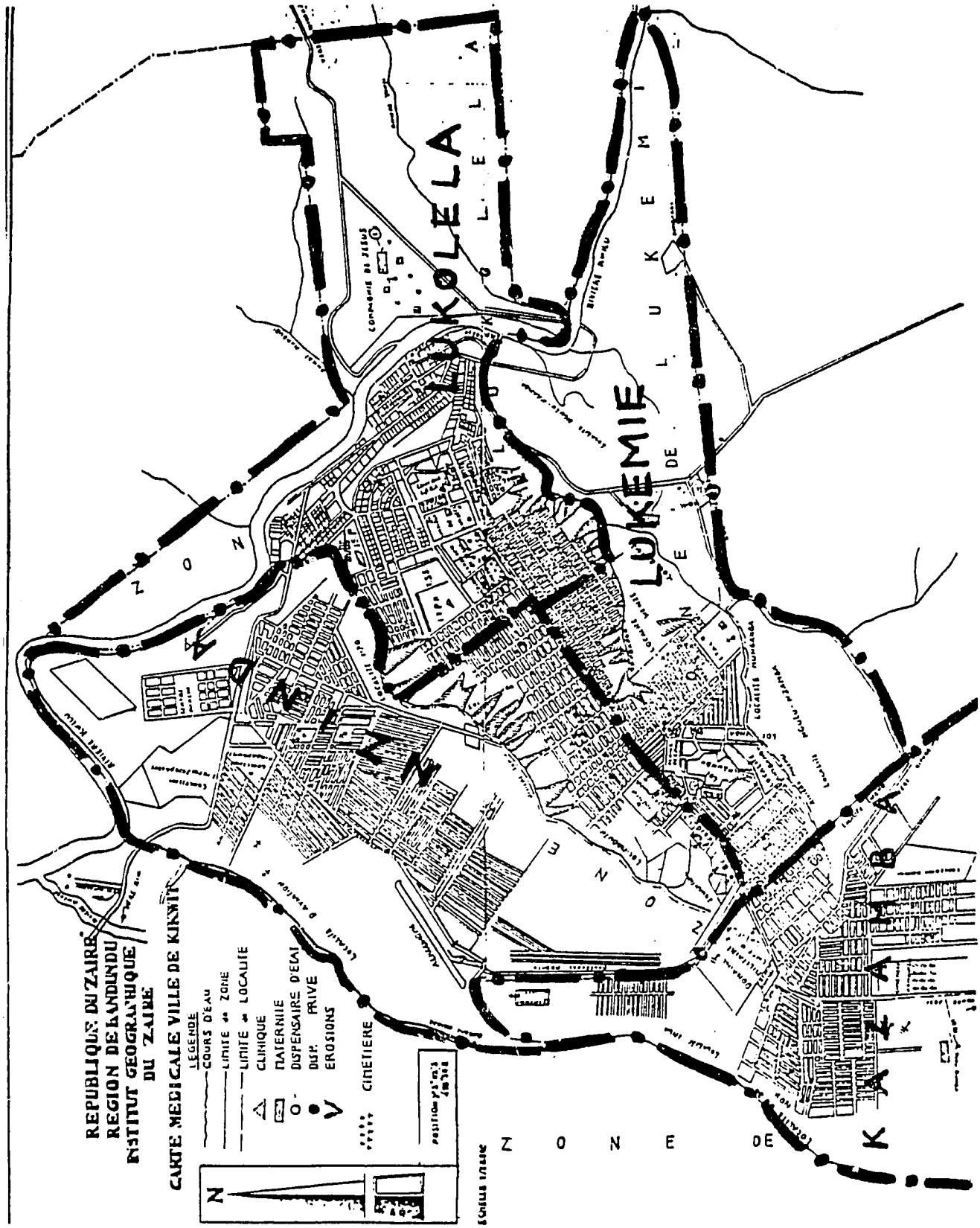


FIGURE 3

ZONAL MAP OF KIKWIT

TABLE 3

1982 POPULATION BY AGE

	Under age 18	Over age 18	Total	%Under 18
Lukolela	20,175	14,898	35,073	58
Nzinda	28,323	18,897	47,220	60
Lukemi	25,702	17,264	42,966	60
Kazamba	23,116	9,021	32,137	72
	97,316	60,080	157,396	62

Source: INS, Kikwit (Institut National de la Statistique).

The Commissaire Urbain has suggested that the fields of unemployed youth who have migrated from the Bandundu villages are a major part of the high level of agricultural activities in the environs of Kikwit (within four hours walk). He feels that these young people prefer to set up cultivation near the city where prices are better, and where they will be able to buy radios and other manufactured consumer goods more cost effectively, rather than be seen as admitting defeat by returning to their villages. In order to test this and other hypotheses about rural-urban interactions, especially urban economic functions and the outreach of services to rural areas, the RHUDO consultant designed a detailed socio-economic household survey which was administered to an initial sample of 76 households in Kikwit during her mission. Copies of the survey form can be found in Annex III of this report. Several tabulations of the survey results have been performed and these findings will be briefly summarized below.

The survey was administered in six neighborhoods, including three areas of predominantly recent construction (Kazamba, Kikwit III, and Poto-Poto[1]) and three older cités (Bruxelle,

1. Though an area named "Poto-Poto" was one of the first cités constructed in Kikwit, part of the original neighborhood was demolished for institutional development and to create buffer zones for the European residential and commercial area. The current "Poto-Poto" seems to be a combination of some older construction but predominantly more recent construction that has assumed the historical name.

Wenzie, and Bongisa). See Figure 4 which maps these neighborhoods. Most variables studied so far indicate that there are marked differences in the economic and social patterns found in the older versus newer neighborhoods.

To obtain an economically stratified sample, survey assistants were asked to evenly divide survey administration between the three urban housetypes (if all were findable in their area of assignment). The housetypes included: (1) durable materials (metal roof and cement block); (2) improved traditional construction (adobe block or mud wattle with metal roof); and (3) "taudis" (village construction technology - mud wattle and thatch). Thus construction cost was used as a surrogate measure for economic level. An approximately equal number of survey forms were administered in each of the six neighborhoods, but some surveyors completed a slightly higher or lower number than others.

There is a trend in the older Kikwit neighborhoods towards residential patterns in which two or three households share each parcel, consistent with the densification of older cités in Lubumbashi and Bukavu, a typical tendency in the central areas of Third World cities. (See Table 4). Owners of parcels in the older cités are constructing one or two rental units in addition to their own lodgings on their parcels, in order to earn income from housing recent migrants. In no case were more than three households found on a parcel. After assembling the means for construction (land, materials, and labor), migrants are constructing single family units on more peripheral parcels, especially in Kazamba, since most land has already been sub-divided in Kikwit III and Poto-Poto.

Household size varies greatly between older and newer neighborhoods. The emerging pattern shows larger average households (5.9 persons) in the more recently developed areas than in the older neighborhoods (4.9 persons/household). A look at the range of household sizes within each neighborhood shows that there is considerable spread, up to twelve members, especially in the newer areas. (See Table 5). The average number of persons per parcel turns out to be fairly consistent across neighborhoods, because of the larger number of households per parcel in older areas (though each unit has fewer members in general), which compares with the larger size of individual households in newer areas (though fewer households are on each parcel). Tenant households seem to be smaller in size that owner occupants' households. Possibly it is seen as more of an imposition for rural migrants from the extended family to demand urban housing from relatives who are tenants.

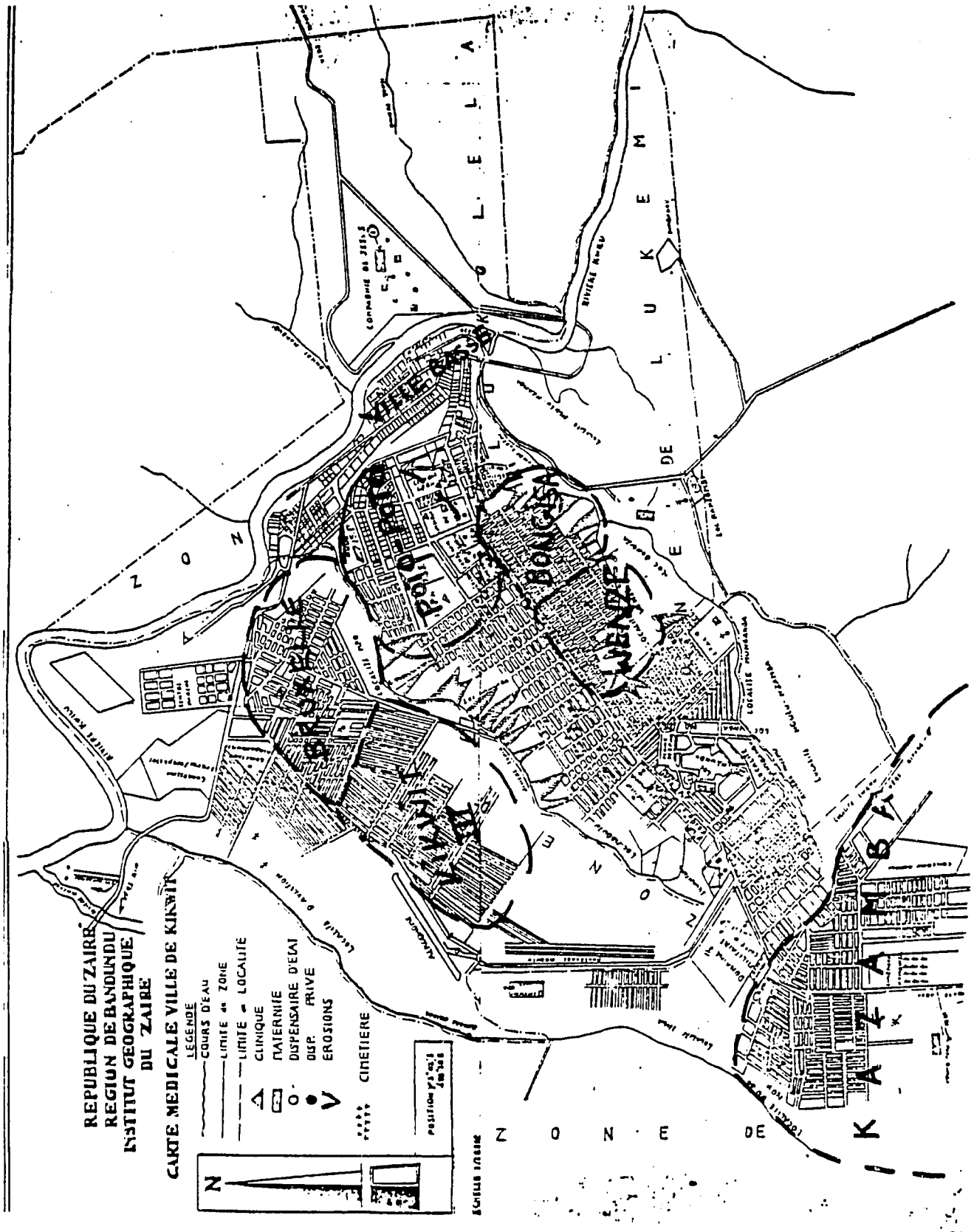


FIGURE 4

NEIGHBORHOODS SURVEYED BY RHUDO

TABLE 4

NUMBER OF HOUSEHOLDS/PARCEL

	One HH/ Parcel	Two HH/ Parcel	Three HH/ Parcel	Total No. Parcels Surveyed
New neighborhoods				
Kikwit III	89%	11%	--	9
Kazamba	93%	--	7%	14
Poto-Poto*	67%	11%	22%	9
Older neighborhoods				
Bruxelle	80%	20%	--	10
Wenzie	91%	9%	--	11
Bongisa	29%	43%	29%	7
No. Households Total	47	8	5	60

* Note: As a "bridge" neighborhood combining older and new residential areas, Poto-Poto has a mixture of the predominantly older and newer settlement patterns.

TABLE 5

HOUSEHOLD SIZE DISTRIBUTION BY NEIGHBORHOOD

	Number of Persons/Household													
	1	2	3	4	5	6	7	8	9	10	11	12	Neighborhood Average (Persons/HH)	Total No. Households Surveyed
New Neighborhoods														
Kikwit	--	--	10%	10%	10%	--	30%	20%	10%	10%	--	--	6.8	10
Kazamba	7%	--	7%	14%	21%	7%	7%	--	7%	21%	--	7%	6.5	14
Poto-Poto	--	--	28%	35%	14%	7%	14%	--	--	--	--	--	4.4	14
Older Neighborhoods														
Bruxelle	--	8%	8%	40%	--	24%	--	16%	--	--	--	--	4.5	12
Wenzie	--	24%	16%	8%	8%	--	24%	8%	--	8%	--	--	5.2	12
Bongisa	7%	7%	7%	21%	21%	--	--	--	7%	7%	--	--	5.0	14
No. Households TOTAL														76

Note: Due to rounding off to even % points, the totals are slightly under 100% in some cases.

Most Kikwit households are involved in agricultural activities, either through the cultivation of fields near the city, or far from Kikwit, or both. The household survey has revealed contrasting patterns in older and newer areas. (See Table 6). In an newer area such as Kazamba, most residents have fields in the neighborhood as well as in the adjoining Kipuka collectivity (which are visited from two to sixteen times per month - a few reported daily visits). However, among households in Bongisa, an older neighborhood, a higher percentage were not involved in agriculture than those that were. Of those Bongisa households that were involved in agricultural activities, however, more had invested in fields both near and far from Kikwit, indicating that their production has gone beyond household consumption to commercial investment. Various investment strategies are used. Since many of the Bandundu and Kasai tribes are matrilineal, economic ties are traditionally stronger between a boy and his maternal uncle, from whom he will inherit, rather than between a boy and his father. Where Christian influence on families has been strong, there are closer father-son bonds, which compete with the matrilineal cultural, economic, and legal tradition. Christian influence results in strategies in which a Christian urbanite invests in rural fields far from Kikwit, putting them in his eldest son's name at the time of original land registration, so that the land and its coffee and trees (planned as investments) will remain in his son's hands without later inheritance disputes, or taxes. It would be interesting to see whether differences in agricultural involvement in Bongisa are related to recency of in-migration and/or tenant status.

Not much market gardening was reported. Kikwit residents are mainly growing manioc, corn, and groundnuts in relatively equal proportions, with a more minor production of squash, especially in the newer neighborhoods, where production overall seems destined more for home consumption than sale. Most households with fields will both consume and sell some of their production, but older neighborhoods' agricultural investments seem to have a more commercial orientation. Those with fields near Kikwit generally visit them by foot and can reach them in an average walking time of 2-2.5 hours, depending upon the neighborhood. The range of walking times reported was from 1-4 hours, and only one household reported a longer walk of 12 hours (which may be a surveyor error).

As a whole, more than half of the households surveyed (40 out of 76), were cultivating fields near Kikwit. As a further demonstration of the importance of direct agriculture production activities in the economy of a secondary city like Kikwit, almost 47.5% of those households with fields near

TABLE 6

INVOLVEMENT IN AGRICULTURE NEAR KIKWIT

	No. Households Involved		No. Households Not Involved	Average Distance of Fields in Walking Time (Hrs.)	Crop Ratios				Ratio	
	1 pers / HH	2 pers / HH			Cassava	Corn	Groundnuts	Squash	Home Consump.:	Sale
ew Neighborhoods										
Kikwit III	7	-	3	2.3	6	5	4	1	4	1
Kazamba	3	9	1	2.3	10	12	9	9	11	7
Poto-Poto	2	2	11	Not reported	3	3	3	3	3	0
lder Neighborhoods										
Bruxelle	6	2	4	2.5	7	7	7	3	5	3
Wenzie	1	4	7	2.4	5	5	5	0	5	4
Bongisa	2	2	9	2.0	4	4	4	0	2	0

Kikwit had both husband and wife working in those fields. Of all neighborhoods, the most recently settled and most geographically peripheral neighborhood, Kazamba, showed the almost total economic dependence, of both husband and wife, on fulltime agricultural activities. Economically speaking, life in Kazamba differs little, in day-to-day activities, from village life, confirming Kikwit's role, as one of the smaller secondary cities in Zaïre, as an interface between rural and urban attitudes and lifestyles.

The last survey variable which was analyzed included both sources and uses of credit. Of the 76 households, only 43 reported using credit. (See Table 7). Though probably under-stating the actual situation, the cases reported offer some insights into the relative importance to Kikwit residents of various available credit and savings institutions, and of the major uses for which credit is sought, and towards which savings are applied. The most important source of credit was the "likelemba", a local term for the rotating credit societies (which are actually savings groups rather than real credit organizations) about which Clifford Geertz has written extensively in the development literature. These organizations are found throughout Africa and Asia under various local names and with many levels of sophistication in some regions (especially parts of Asia). In Nigeria, for instance, the Yoruba term "esusu" is used in Lagos, and the Hausa/Fulani name "adashi" is found in Kano and Zaria, for much the same type of society. A group of likelemba members contribute a fixed sum on a regular rotation schedule (for instance 50 Z/month) and at each rotation, one member takes the whole sum of that period's contributions by all members. Those who have their turn near the beginning of the cycle are receiving interest-free credit from the others; the last person in the cycle only receives his actual savings over that period (like a Christmas Club account but without interest).

Since the likelemba is an unwritten contract, participants are vulnerable, because by Zaïrian law, defaults on credit of over 20 Z (33 cents US) are not litigable unless based on a written contract. Furthermore, a married woman is not allowed, under Zaïrian law, to enter any contracts (including likelemba) without the prior authorization of her husband, therefore married women who default in likelemba contracts can not be prosecuted unless evidence of the husband's prior authorization can be presented (which is almost never the case)[2]. Nevertheless, this is the major credit source used

2. Citoyen Ntambue, Katshay Tshilunga, "Le Likelemba et le Muziki à Kinshasa: Nature et Problèmes Socio-Juridiques en Droit Privé Zaïrois", Zaïre Afrique No. 177, Sept. 1983, pp. 431-440.

TABLE 7

SOURCES AND USES OF CREDIT

	Likelemba	Tontine	CBZO	BCZ	State Savings Society	Other	Total No. HH Reported Using Credit
New Neighborhoods							
Kikwit III	4B	--	-- --	--	--	--	4
Kazamba	1A	1A	-- --	--	1A	1A	4
Poto-Poto	5D	--	1E,5D	1A	--	3D	15
Older Neighborhoods							
Bruxelle*	-- -- --	--	--	--	--	--	0
Wenzie	6D,2B,3A	2D	--	--	1A	--	14
Bongisa	2B,1A,1D	--	1C	--	1A, 1D	--	7
TOTALS	25	3	7	1	4	4	44

*Note: Total lack of response in Bruxelle might indicate surveyor had difficulty presenting the question in a diplomatic fashion.

SOURCES AND USES OF CREDIT (suite)

Code of Purpose for Which Credit Was Used	% Of All Reported Uses Of Credit by Purpose	Number of Cases
A = Commere	25%	11
B = Education	19%	8
C = Transport	2%	1
D = Consumption/Social Obligations	52%	23
E = Construction	2%	1
TOTAL	100%	44

by Kikwit residents, primarily to meet social obligations (ceremonies, festivals, dowries, consumption). It is also often used to pay educational expenses for family members, and occasionally to generate trading capital.

The "tontines" (as used in Zaïre) or "muziki" (as they are called in Kinshasa) are also clubs of limited membership, but usually with two differences in structure from the likelemba. First, the tontine membership is usually larger, and secondly, the primary purpose of this informal sector institution is social not financial, the reverse of the likelemba's priorities. Members meet on a regular rotation cycle and verse a set contribution at each meeting to the event's host (who is also a different member in rotation). The contributions basically reimburse the host for his or her entertainment expenses - little credit or saving function is performed. However, the tontine has a more general and diffuse mutual aid function, based upon the multiple social bonds uniting its members (a deeper relationship than the one-dimensional likelemba contract). Members take up special collections to help each other through crises or to congratulate each other on festive occasions. It was cited as a lesser source of credit than the likelemba, but of some assistance in meeting social and commercial obligations.

Next to likelemba, the CBZO (Communauté Baptiste du Zaïre Ouest) savings and credit cooperatives are the most popular (and available) sources of credit. These cooperatives are now ecumenical, and have no entry barriers, since only an 11Z (about 35 cents US) payment is required for joining and there is no other minimum deposit, and no transaction fees for later deposits or withdrawals. The CBZO is particularly popular in Poto-Poto, which is near its main office in Kikwit, and its loans (only available to members) were used by survey respondents primarily for meeting social obligations (such as family health care), and to a more limited extent for construction or transport investments. A later chapter of this case study describes the CBZO cooperatives more fully, since they are recommended as key institutions in a Kikwit development strategy.

The Commercial Bank of Zaïre (BCZ) has a high minimum deposit and minimum balance required for opening and maintaining an account, and its transactions charges are also high, even though it provides an attractive interest rate for deposits (24%/year). Only one respondent had the means to use a BCZ account for commercial credit.

The state savings societies (Caisses d'Epargne) have high

transaction costs and service is slow and unreliable. Relatively few respondents had joined them (only four households). Those who had joined used them for trading capital. The category "other" was found to include the use of private money lenders (known as the "Bank Lambert", the offer with short term loans at usurious interest rates, usually for a month's advance against salary) and credit from suppliers (stores). These sources were used to obtain trade goods or meet social obligations.

D. Energy Sector and Water System Limitations to Urban Functions

The constraints on the dependability and duration of electrical power availability in Kikwit are hampering the city's economic development. SNEL, the state-owned electrical power facility, is using four motors, two of which are over 30 years old, to generate Kikwit's electricity. This obsolete equipment is not being replaced over time, and during the RHUDO mission, one of the four diesel motors was reported to be permanently dysfunctional. In addition to these equipment limitations, the scarcity of both regular gasoline and diesel fuel in Kikwit is a second constraining factor on power output. National rationing policies are now in effect, and though preferential allocations are given to SNEL and Regideso (the State water supply agency), the diesel fuel available will only supply electricity to present users from 8:00 am - 12:00 am and from about 6:30 pm - 10:00 pm daily (until midnight on Saturdays) under optimal conditions. In fact, these hours were often shortened by power cut-offs at 11:00 am and at 9:00 pm. Not all users are served equally. There has been a freeze on connecting new users to the electrical system for some time and a few politically well-placed clients draw most of the benefits from the limited existing service. Some neighborhoods do not receive power regularly, while the Hotel Kwilu receives the best service in town.

Cost recovery for improvements to the existing system, or its replacement by a new hydroelectric power plant, is a major problem for the design of projects which would expand electrical power capability in Kikwit. The largest existing users do not pay for their power (Hotel Kwilu, schools, missions, the Hospital, etc.). Rapids and water falls are available at four sites ranging from 70 km to 135 km from the city, which have the capacity to meet the real present and projected future demand of Kikwit (out to year 2000 and beyond). Such a project was estimated to require approximately an $11 million investment, according to Frère Losseau, a Jesuit father and professor of mechanical engineering at IPTK in Kikwit, who has studied the hydro-potential of the Kikwit environs for some time. If currently available users were fully serviced, and were willing to pay the reasonable rate of Z 5/Kwh, this level of capital investment could probably be repaid within the decade, but in the face of current corrupt practices, such cost recovery would require major institutional reform and strict enforcement of the new policies.

If additional project development is considered, in spite of these cost recovery issues, a first step would involve

obtaining and reviewing the German-financed feasibility study of these potential hydropower sites. No copy was available in Zaïre during the RHUDO mission.

Secondary sources believe that German bilateral aid is interested in funding a hydroelectric facility on one of the two sites nearest to Kikwit, and that subsoil problems studied are not technically insurmountable, but the major inpediment seems to be the political disfavor which Kikwit has attracted since the 1964-1965 Mulele Rebellion. Though not the center for political unrest at that time, as the demographic and cosmopolitan center of Bandundu, Kikwit was and continues to be seen as a potentially dangerous "hotbed" of intellectual discontent (generated by the large number of educational institutions in the city). This perception by the Presidency, complemented by the preference of a highly placed Minister from MaiNdombe, were the reasons for the removal of regional capital administrative functions from Kikwit at the end of 1969, and their transfer during 1970 to Bandundu (a much smaller city in the subregion of MaiNdombe, eccentrically placed in relation to regional population concentrations, and poorly linked to other intra-regional centers by transport infrastructure). As in other parts of Zaïre, the central government does not assign top executives to positions within their own regions of origin and terms of office are kept short, to discourage development of an autonomous power base. This is part of national attempts to discourage regionalism and secessionist mobilization, as an aftermath of the bitter 1960-1966 civil war, and more recent Shaba rebellions ('74 and '80). The central government continues to place close associates of the President in responsible overseeing positions in Kikwit, to keep a firm hand on the local pulse, and most sources feel that it is unlikely that counterpart funds will be allocated to the city by the central government, such as those required to secure German aid for a hydroelectric project.

According to the Commissaire Urbain, at least two local entrepreneurs would invest in industrial development projects if power were available to new users and with greater frequency and reliability. Certainly industrial and modern informal sector development in Kikwit would require upgraded power and water system infrastructure as a necessary condition, but it is unlikely that providing these services alone would assure the attraction of greater economic diversification to the city.

According to Frère Losseau of IPTK, four hydroelectric sites near Kikwit have the potential for supplying current and

projected power needs. Their approximate capacity and distance is summarized in Table 8. To estimate their capacity for the production of electric power, the following equation was used:

Power in Kw = Volume (M^3/sec) x g (gravity content = 10) x height of falls or rapids

These opportunities are produced geologically by the descent of Bandundu rivers from the plateau to the savanna, creating a rim of waterfalls from about 50 km to the south of Kikwit. Even small rivers present opportunities for village-based hydroelectric installations, and could use as one model the Kasanza monastery hydro-electric project in Bandundu Region, which has been supplying the mission's needs for many years. In fact, it would be advisable for an AID mission to evaluate this experiment fully, as background for other hydro-power project development. For instance, initially installed moving parts at Kasanza had to be replaced with stainless steel ones which would be able to resist the corrosion caused by the high level of acidity in the river, and this sort of experience would be valuable to document more fully, since all of the sub-region's rivers are rather acidic. At Idiofa at this time, a $10,000 community development project is just beginning, which plans to construct a 100 Kw hydro-electric facility. (This appears to be a project of the DPP, Développement du Progrès Populaire, an Idiofa-based indigenous Catholic PVO, but future site visits to Idiofa should verify this).

The current capacity of SNEL electric production for Kikwit is only 650 Kw, generated by the three diesel motors which are still functioning. This is a reduction from the 900 Kw formerly available before the breakdown of the fourth motor, which appears to be irreparable. No new equipment has been added to the system in over a decade, which was when the two most recently acquired motors were purchased. The existing users require 800 Kw in the peak evening hours, thus even if all of the three remaining engines can be kept working (which is often not the case), and even with the limited hours of service currently available, current subscribers' needs can not be met, and not all neighborhoods can be served at any point in time. As stated earlier, most of the existing demand remains unsatisfied, since new subscribers have not been allowed to connect to the system since the connection of the Hotel Kwilu (a 100 Kw consumer).

Aside from obsolete equipment, the national fuel shortage has provided a major constraint on SNEL power production, and this

TABLE 8

POTENTIAL HYDRO-ELECTRIC SITES

I. Lufuku River, Rutten Falls (Kakobala)

Distance from Kikwit:	70 km
Height of falls:	28 M
Dry Season Flow:	30 M^3/sec.
Drainage Basin Size:	2,280 km^2
Capacity for electricity production:	8,000 Kw early dry season
	10,000 Kw rainy season

II. Yambeshi River (1.5 km Rapids at Bamba)

Distance from Kikwit:	92 km
Height of rapids:	81 M
Average flow:	20 M^3/sec. (minimum)
Exploitation Requires:	1,040 M. canal and 270 M. long vertical conducts. Therefore may be most expensive alternative, but reported to be favored by German aid.
Drainage Basin Size:	1,775 km^2
Capacity:	16,200 Kw

III. Luie River, Lippens Falls at Kitona

Distance from Kikwit:	133 km
Height:	39 M
Volume:	40 M^3/sec.
Speed:	5 M/sec.
Drainage Basin:	2,910 km^2
Capacity:	15,600 Kw

IV. Inzia River at Kifilu

Distance from Kikwit:	180 km
Height:	25-30 M
Volume:	35 M^3/sec.
	40 M^3/sec.
Basin Size:	2,000 km^2
Capacity:	8,750 Kw (minimum)
	12,000 Kw (possibly)

shortage will become even more critical in future, making the need to exploit non-fossil fuel energy sources even more critical. To supply the limited clientele now served by SNEL on a 24 hour basis (550 Kw x 24 hours per day), about 150,000 liters of diesel fuel would be required per month. The usual monthly allocation for SNEL only ranges between 50,000 - 80,000 liters, and in fact SNEL's October 1983 allocation was reported by ANEZA as only about 30,000 liters. Even so, SNEL and the Regideso public water system received the lion's share of existing supplies provided in the October 1983 allocation citywide of 110,000 liters of diesel fuel. SNEL and Regideso each received about 30,000 liters, leaving only 50,000 liters for distribution to other consumers. Since most of the commercial vehicles in Kikwit are diesel-powered, competition for this fuel is fierce. ANEZA distributes most of the remaining allocation to its paid-up members (22 "industries" and 61 commercial businesses in Kikwit, eight businesses in Idiofa, and 14 missions in both cities). Almost nothing is left for the small consumers (artisans, small businessmen with one vehicle) who must buy fuel from the one official gas station in Kikwit, or pay higher than official prices for purchases on the "parallel" market. In October 1983, the parallel price was 45 Z/liter, while the official price was 35 Z/liter.

New potential electrical users are available in the recently developed neighborhoods of Kikwit III, and with the construction now underway of a new facility for the State-owned junior college (the Institut Supérieur Pédagogique), an imminent citywide demand of 2,000 Kw is a minimal estimate, and would require 10,000 liters of diesel fuel per day at the rate of consumption now applicable to the elderly SNEL motors. The cables and transformers which were installed in Kikwit in 1950 were designed to handle only 500 Kw, so this infrastructure will probably need replacement if the system is upgraded. Frère Losseau has estimated that 10,000 Kw would not be an unreasonable level of demand citywide by the end of the next decade, but clearly this projection would need to be verified by a detailed feasibility study, if this has not already been done by the German team, if projects in the energy sector are contemplated.

No other alternative to fossil-fuel use has emerged from past studies. Some time ago, a floating hydro-power station had been studied for the Kwilu River, but this was found to be technically impossible, principally because one would need to pass all of the river's volume through the machines just to obtain 600 Kw. Other studies have considered using oil palm factory waste for combustion, but this is also not technically

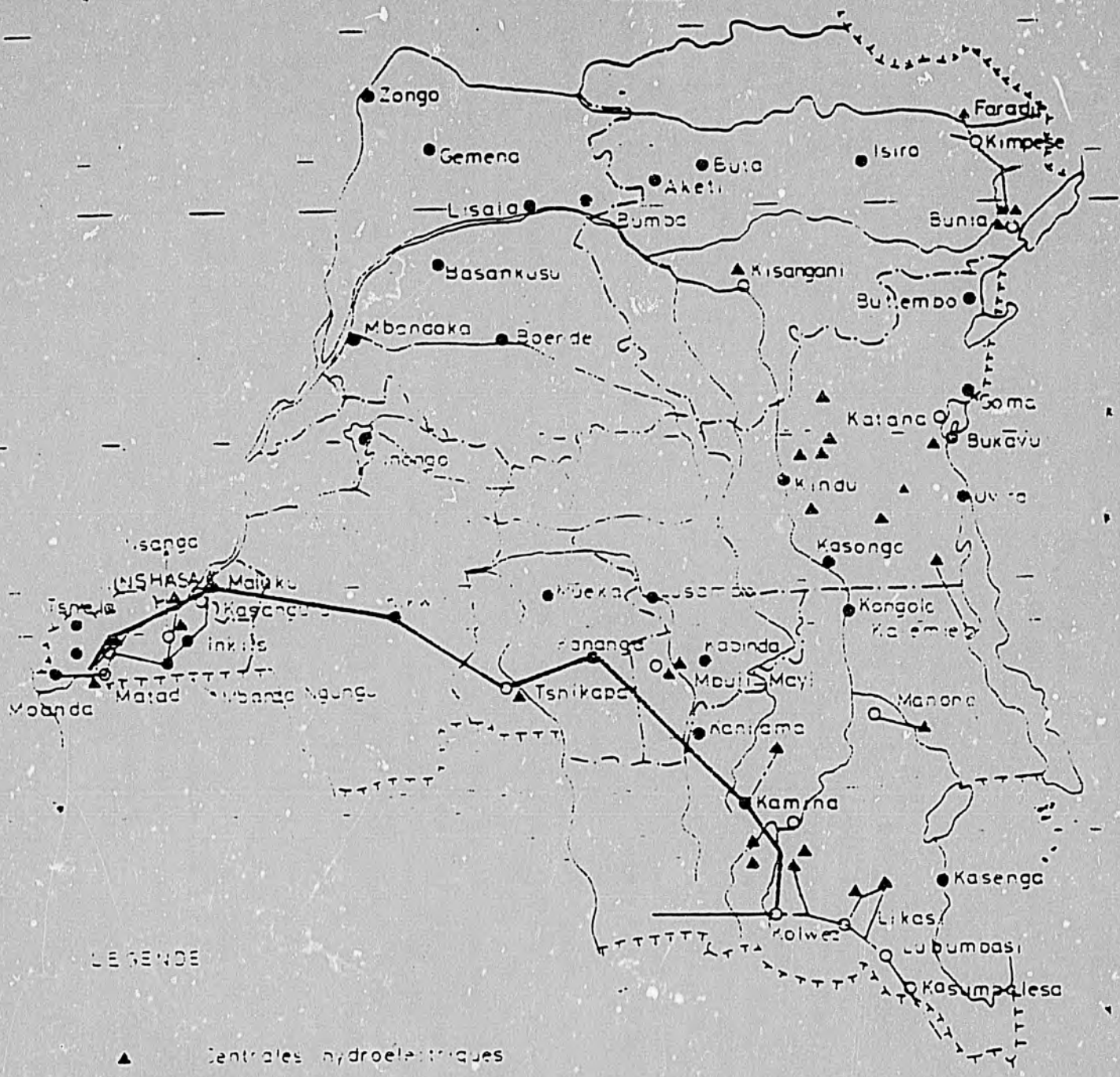
feasible. To obtain 2,000 Kw with this method, one would need to consume 30 tons of palm nut shells per day but, in fact, existing oil factories are already using their own waste as fuel and finding that it is insufficient in volume to meet their own energy needs.

More recently, a third possible alternative energy source was proposed by the J. Orszagh report, "Pour l'évaluation des potentialités en matière d'énergies renouvelables: projects ACCT Bandundu et Bas Zaïre" based on his May 1983 mission. Professor Orszagh, from the University of Mons, Belgium, recommended the use of biogas from wood distillation as a fuel for local village projects. Meeting the needs of a city like Kikwit with wood gas would be clearly impossible. Actually, existing deforestation caused by firewood collection and agricultural clearing is already a major problem in the Kikwit area, and is causing the erosion discussed earlier, which is problematic both for long term agricultural productivity (soil loss), and housing and sanitation conditions. Kikwit women already are walking from 10 to 20 km in search of firewood for cooking. To produce 2,000 Kw of electricity, about 30 tons of dry wood would need to be combusted per day. Since after a ten year maturation period, a hectare of forest produces about six tons of wood, reliance upon wood gas would require at least 18,250 hectares of forest, not available in the environs of Kikwit. Other technical exigencies of this system make the proposal even more ludicrous, such as the over eight months of drying (in an atmosphere of 80-95% relative humidity) which would be necessary before the wood would be combustible, and the amount of fossil-fuel required by vehicles which would plant, maintain, and harvest the 18,250 hectares of forest. It is for many of these reasons that ONATRA, which formerly used wood to power its forest zone freight barges, has switched to diesel-powered motors for all but a few isolated routes.

The Energy Map of Zaïre shows that hydroelectric projects have already been constructed in other parts of Zaïre (Tshikapa and Mbuji-Mayi in the Kasais, central and north Shaba, the Kivu, Bunia and Kisangani in Haut Zaïre). Bas Zaïre has several hydroelectric installations, the most famous of course being the Inga Dam and power line. As mapped, the Inga line follows the National Route from Matadi to southern Shaba. BEAU staff reported that for a 10% higher initial capital investment, the country could have installed an alternating current line, with intermediate transformers that would simultaneously have the capacity to take off current for local secondary city use, and to step up the remaining current for onward transmission. The ensuing economic stimulation and diversification might have

FIGURE 5

ENERGY MAP OF ZAIRE



enabled these National Route cities to take off developmentally, for a moderate marginal investment cost. It would be a useful illustration for future macro-investment projects, to compare the composite cost of providing separate thermal facilities and their fuel with the alternative aggregate incremental cost for the Inga line.

The present output of the Kikwit water plant is only sufficient for 30% of its population's drinking water requirements. This has caused proliferation of waterborne diseases and has discouraged economic development. Water distribution is also handicapped by the short hours of electric service available to run the pumping system. Existing water supply has depended since 1952 on a $90m^3/hr.$ water treatment plant which processes water taken directly from the Kwilu River. Two re-pumping stations exist, required by the hilly terrain, but only one is presently operational because of the limitations on water supply.

Regideso prepared a 1983 pre-investment study for a water supply project for the city, and supplementary test well drilling followed by a detailed engineering study has been included in the GOZ loan proposal, currently being considered by the African Development Bank, for water supply feasibility studies in 15 of the country's secondary cities. If the study is financed, it is proposed to explore underground water sources for increased production; extension, reinforcement, and rehabilitation of the distribution network; redefining of pressure levels and strengthening of the pumping stations; and increase in storage capacity and number of water points. Though it is encouraging that these crucial first steps have been taken, project feasibility will face the same two limiting factors which also endanger electric system improvements: (1) problems in achieving cost recovery through user fees in the face of current corrupt practices; and (2) the low priority assigned by the GOZ to the provision of local counterpart funds to Kikwit (which are required to secure external project financing) because of past political distrust.

E. Urban Functions

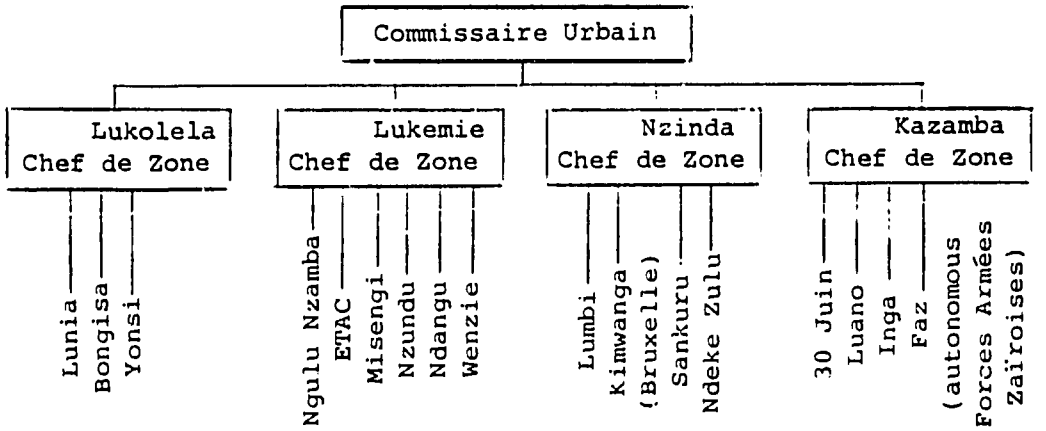
The most important Kikwit functions which provide crucial services to rural development, are subsumed under the following sectors: government administration, transport/ commerce, education, health, artisans, private voluntary organizations (PVO's), development projects, and credit activities. A detailed summary of each sector of activity will be presented below.

- Administration

Earlier in this Profile, historical and political material demonstrated the centralized top-down structure of governmental authority and decision-making in Zaïre, and explained ways in regional autonomy and the decentralization of control have been constrained intentionally by the Presidency. The structure of government provides a mimic, in more miniature form, of the central government ministerial structure (and relevant parastatals) at each subordinate geographical level. (See Table 9). Kikwit's administrative role is really twofold - (a) Sub-regional services for its own residents and (2) Intra-urban administration. The intra-urban administrative hierarchy is illustrated in the following diagram:

TABLE 10

INTRA-URBAN ADMINISTRATION



Zones are divided in "quartiers" (formerly known as "localités")

TABLE 9

GOVERNMENT OFFICES LOCATED IN KIKWIT

Under the Commissaire Urbain

1. Transport Public et Aménagement du Territoire (includes Commissariat au Logement); Public Transport and Territorial Infrastructure (includes Housing);
2. Enseignement National (National Education);
3. Information, Culture et les Arts (Information, Culture and the Arts);
4. Sports et Loisirs (Sports and Leisure);
5. Affaires Foncières et Cadastre (Land Management)'
6. Inspection du Travail (Labor);
7. Mines (but there are none in Kikwit!);
8. Aéronautique (Aviation)
9. Défense Civile (Civil Defense);
10. Economie Nationale, Industrie et Commerce (National Economy, Industry, and Commerce);
11. Agriculture, Environnement et Développement Rural (Agriculture, Environment, and Rural Development);
12. Vétérinaire (Veterinary Services);
13. Tourisme (Tourism);
14. Affaires Sociales (Social Affairs);
15. Santé Publique (Public Health);
16. Anciens Combattants (Veterans);
17. Transports et Communications (Transport and Communications);

Autonomous:

18. Office des Routes (Roads)
19. Air Zaïre
20. Institut National de la Statistique (National Statistics)
21. Institut Géographique du Zaïre (Geographical Institute)
22. ANEZA (Chamber of Commerce)
23. SONAMO (Parastatal providing payroll services to local entrepreneurs)
24. ONATRA (Parastatal for river freight)
25. SNEL (Electrical utility)
26. Regideso (Water utility)

These "Chefs de Zone" are not traditional chiefs, but rather are modern political appointees. They are expected to perform and coordinate their level's administrative functions (annual administrative censuses), neighborhood dispute resolution, zonal land registration, etc.

The role of each lower unit is generally to transmit decisions made at higher order levels, to perform routine documentary and other services, and transmit data and fees collected back to the central headquarters. The local revenues (fees, etc.) generated by subdivisions of national ministries are not retained for purchasing supplies for local offices; all must be sent to the Kinshasa general fund. The only exception to this rule is that some local fee receipts generated by Economic Affairs, the Veterinary Department, and the Environment, Culture and Arts Department, are allowed to be retained by the local services. Though collectivities have the right to raise local revenues through taxes, the fiscal dependence on Kinshasa of local branches of national ministries has resulted in a poor level of service for local clients. This is an inefficient system, which produces revenue transmission losses at each level (transport and reporting costs, and theft). Frequently, local administrative offices have no supplies (stationary, blue print paper) or necessary equipment (for reproduction, land survey, etc.). Supplies are centrally funded, and with the enormous logistical difficulties of working in Zaïre, this funding and distribution system is very ineffective.

Low government salaries encourage workers to demand extra "private" fees for their services to supplement their income, and/or to profiteer from those official supplies and equipment which they control. Therefore, clients who can pay get served first, if the others are served at all. Work hours in government offices are shortened by energy limitations (machines only function from 8:00 am - 11:00 am) as well as by poor worker attitude in response to low wages. During October 1983, secondary school teachers with University level training were only receiving 600 Z/month nation-wide, while the most inferior brand of manioc (a family food staple) was selling for 400 Z/sack in Kikwit, and 900 Z in Kinshasa. It is impossible to feed one's family on currently controlled government salaries, especially in the prevailing atmosphere of rapid inflation. Manioc prices had jumped 50 Z/sack just during the RHUDO mission in Kikwit.

Aside from lack of supplies, equipment, and morale, local government services in Kikwit are hampered by the low level of staff skills (especially in statistics or even basic math),

and the lack of delegation of authority. In line with traditional and colonial structures, everything must pass by the chief. If he is not there, only the most routine services can be performed, and often not even this can be done, since no one is empowered to sign permits, etc. Information available from the scanty records maintained by documentary services is only authorized for distribution to the public by the chief personally. This slows service performance considerably, and wastes everyone's time, since under current economic conditions, the chief is often out looking for spare parts or fuel for his car. Because of poor staff skills, available statistics do not even add up to their stated totals, in many cases, as was found with past school enrollments for instance. If one needs a copy of the CADASTRE urban parcel map, it becomes a time-consuming complex task to find print paper from a private supplier, pay a bureaucrat to use the official print machine, find ammonia to develop the print, and so forth. Because of frequent reassignment of personnel, especially office chiefs, past records and archives are either impossible to find, decipher, or are heaped in disarray (as land titles were in Cadastre) awaiting their collection by a higher government level. Shipment of these records to Bandundu has been pending for 13 years and they are meanwhile turning to dust. Each new occupant of an official role creates his own record system, and leaves nothing intelligible behind for his successor.

Government services are also inefficient because they are redundant. Land occupancy registration requires, for instance, filing applications and paying fees for each of the following: land measurement, preparation of a drawing of the parcel, preparation of a contract, and the payment of annual land rentals firstly at the Kikwit Sub-Regional Office of Affaires Foncières (Land Control), and secondly at the regional office level in Bandundu, where separates fees are paid for all of the same services again. One is also supposed to register at the sub-urban level at the zonal office where other fees must be paid. In view of this cumbersome process, it is not surprising that many parcel occupants never file official papers, since enforcement is poor; most merely negotiate with the traditional Mbala land chief, especially for fringe area parcels.

Since pay is low, and Kikwit has a poor level of urban services (power, water, and night life) compared to Kinshasa (eight hours away by paved road), it is difficult for government to engage and retain qualified personnel. Replacement of vacancies left by retirees is slow (government inefficiency and cutbacks). In the Cadastre land survey

office, which serves a crucial urban administrative function, the only trained surveyor with a diploma is the office head, who is certainly not going to do the field measurement work.

Kikwit is particularly disadvantaged in its ability to give administrative services to its surrounding dense rural populations, by the historical and political anomaly of its role as a sub-regional autonomous urban area instead of a regional capital. As the demographic, geographic, and economic center of Bandundu region, Kikwit is the most efficient and accessible site available on which regional public services could be centralized, and is also the city most in need of highly skilled resident government personnel. Bandundu city, the regional capital, is relatively inaccessible by road (passenger river transport is slow and infrequent), and is peripheral to existing demographic densities. Since the most skilled regional personnel are located in Bandundu, they have become relatively ineffective and isolated and are probably often absent from their posts, because amenities are even lower there than in Kikwit. By choosing a marginal regional capital, central government has put regional services beyond the reach of most users.

There are a limited numbers of exceptions to the central government pattern of not encouraging real decentralization. The Office des Routes (Road Office) has decentralized road maintenance decisions and supervision of road construction and upgrading to the regional level. Decisions about locational priorities for construction, budgeting, and expenditure control, for all but routine maintenance, however, remain centralized in Kinshasa, and local input is not really solicited. The Office des Routes has recognized Kikwit's importance and locational effectiveness, by choosing to site its major regional presence and proposed future regional in-service training facility in Kikwit rather than Bandundu. The establishment of this training facility will provide a key model for upgrading regional government services and local public employees' skills. USAID Zaïre has established a close working relationship with the Kikwit branch of the Office des Routes, including the installation of a resident expatriate technical assistant, and major construction funds have been contributed by USAID towards Kikwit-Idiofa feeder road construction, as part of its program of marketing support for rural agricultural producers. Other rural roads in the Kikwit-Idiofa vicinity are being surveyed for upgrading under USAID's new area development project.

Much remains to be done, however, since even basic office equipment is still lacking, as well as competence in the use

of what is available. Agencies are not collaborating effectively with other services. Especially in view of the scarcity in Kikwit of office equipment (for stencilling, xerox, and other reproduction) and skilled personnel, the need for inter-agency collaboration goes beyond the level of "desirable" and becomes essential. Institutionalizing central reproduction facilities to serve all ministries would be advisable, as well as a regular program of information sharing, coordination of planning, technical and equipment exchanges, and collaborative efforts for staff training. The meager sub-regional and Kikwit-oriented employment data which does exist, for example, is divided among at least five agencies (ANEZA - the employers' Chamber of Commerce, Sonamo - a State payroll service for private entrepreneurs, the ministries of Labor and National Economy and the Commissaire Urbain). It would be advantageous for these organizations to join forces to collate their information as a basis for planning. Even so, the data would be incomplete. There is no way of subst tuting for a door-to-door survey if accurate Kikwit employment data were needed for project design purposes.

Aside from the Office des Routes, the other national-level ministry which has supported internal decentralization is the Département du Plan, as described earlier in the section of this Profile on national-level project recommendations. The Department recognizes that its commitment to encouraging regional autonomy and bottom-up project initiatives is handicapped in Bandundu region by the Regional Division's office being located in Bandundu city, rather than in Kikwit. The limitations on travel and per diem items in most Zairian administrative budgets reinforce the separation between service providers and their broader clientele, through lack of opportunities for field surveys. Citoyen Luzolo, Director of the Commissariat Général au Plan, has suggested that a program of collaborative studies and training be developed through Kikwit-based workshops. These workgroups would bring together technicians from the Division Régionale du Plan in Bandundu, Kinshasa technical assistants, and local Kikwit professionals from the Ministries (especially ANEZA, the Commercial Bank of Zaïre, the national labor union UNTZA, Agriculture and Rural Development, Social Affairs, and the National Economy) to plan regional economic development projects.

As a whole then, Kikwit public services need considerable institutional development, especially through technical assistance; in-service training in archiving, statistics, and logistical support (materials and equipment); inter-agency coodination; morale building; and enforcement of regulations for the public good (e.g. payment of user fees for public

utilities). Local and central revenue generation needs to more fully assessed and redesigned. A regular program of topical debates and inter-agency staff training, drawing upon PVO and academic personnel in the city, would go a long way towards building staff morale and skills. In spite of their problems and deficiencies, however, the administrative services which are being provided in Kikwit are crucial to surrounding rural areas. For instance, ANEZA is allocating all of the sub-region's scarce fuel quota, essential for farm gate to market transport.

It is also important for USAID-funded institution-building projects, such as the CEPLANUT (Centre de Planification de Nutrition Humaine) which just was starting up in Kikwit in October 1983, to become integrated into existing administrative structures. Setting up new and separate units that compete with (or duplicate) existing health and educational services, both governmental and private, will merely add further levels of complexity and inefficiency to a bureaucracy which is already excessively fragmented, compartmentalized, and overly Statist. Many services (such as river freight transport) have unnecessarily and inefficiently been constituted as State monopolies in the past. Though some privatization has been encouraged recently (emergence of private domestic air cargo lines and relaxing of controls against private river transport), Zaïre still has a long way to go in this domain.

- Transport and Commerce

Other major functions served by Kikwit relate to the transiting of goods (primarily food products) en route to Kinshasa and the Kasai(s), and the movement of imports and Kinshasa manufactures destined for boutiques in the interior. The Kikwit commercial sector is considerably more active than that of any other city in the region, including the much less populous capital, Bandundu. For this reason, the Kikwit branch of the BCZ (Banque Commerciale du Zaïre) is the most well equipped in the region. In fact, Bandundu merchants are often required to travel to Kikwit to use BCZ facilities there, which are more likely to have cash available thanks to the larger number of commercial depositors. According to the Département du Plan, Kikwit bank deposits averaged 214,000Z/day in 1981 (when Bandundu city deposits were only 14,000Z/day) and by fall 1983 Kikwit daily deposits had tripled.

Based on a December 1980 mission to the Kwilu, three FAO technical assistants to the Office National des Produits Vivriers (ONPV) completed a report on the marketing of Kwilu food production. The team included a marketing expert, a statistician, and a transport specialist, and their geographic areas of focus were Bulungu (zonal capital and Kwilu river port), Idiofa (zonal capital), Mangai (Kasai River port and important economic center in Idiofa zone), Gungu (zonal capital), and Kikwit (sub-regional urban area, active commercial center, and Kwilu River port). According to 1979 statistics obtained from the Department of Agriculture and Rural Development, the strongest zone of sub-regional agricultural production is Idiofa (Kalanganda, Kipuku, Mateko, and Kapia collectivities in particular). For produce collection planning purposes, the collectivities of Kalanganda, Kipuku, and Mateko produce 30% of the marketable corn, and those of Idiofa, Kanga, and Banga produce the salable rice. (See Table 11).

Most of the freight includes produce directed towards Kinshasa, and a lower level flow back to the Kwilu study area of provisions and consumer goods. The major infrastructures linking the region and serving this flow include the asphalted Kikwit-Kinshasa portion of National Road No. 1, which was completed in '77 by the replacement of seven ferries with bridges. Other roads are made of earth. The Office des Routes is responsible only for constructing, improving, and maintaining national roads, and has a sub-regional office in Kikwit which supervises three teams (Bulungu, Idiofa, and Gungu). National Route No. 1 now continues from Kikwit to

TABLE 11

1980 AGRICULTURAL PRODUCTION IN KIKWIT VICINITY

	3 Zones' Total	Idiofa	Bulungu	Gungu[3]
Corn	185,000T	124,000T		6,000T
Rice (paddy)	27,000T	22,000T	2,000T	
Manioc	100%	67%	25%	8%
Millet, Yam		X		X
Groundnut		X	X	
Sweet Potatoes, Banana, Plantain		X		
Soya				38T
Palm Oil				X
Coffee		X	X	
Marketable Surpluses (over local needs)				
Corn		116,000T		
Rice		18,000T		
Manioc		X	X	(disease reduced yield)
Groundnut		X	X	

3. Where figures were available, they were used, otherwise 'X' indicates presence of the crop without quantity indication. Figures on manioc tons/zone were also not available, only the relative shares of production.

Source: Thorigné J.H., "Mission de Consultation sur la Commercialisation dans le Kwilu", Rapport Préparé à l'Attention du Projet de Développement Rural Intégré du Kwilu ZAI 78/001, January, 1981.

Idiofa, Tshikapa, and Kananga, with increasingly poorer conditions and slower speeds as distance from Kikwit mounts (e.g. Kikwit-Lungu in good condition - 50 to 60 km/hr; Lungu-Idiofa-Banda fairly good, 30 - 40 km/hr but problems caused by sand and lack of materials to fill pot holes). The paving of National Road No. 1 is following a new alignment south from Kikwit to Tshikapa, so shortly the main road will no longer pass through Idiofa. In the long run, this may curtail Idiofa's development substantially.

River transport includes the Kasai and its tributaries (Loange, Kwilu, Inzia). The Kasai and the Kwilu are the most navigable. The Régie des Voies Fluviales (RVF) operates three channel-marking boats on the Kasai and one on the Kwilu, which are particularly important during the low water (dry) season, when it is easy to run aground. Mangai is the major Kasai river port before Ilebo, and ONATRA has projected the construction of ports at Panu and Dibaya-Lubwe (593 and 690 km from Kinshasa respectively), which will be receiving USAID assistance. On the Kwilu, the major ports are Kikwit, 717 km from Kinshasa, and Bulungu, 615 km. Port facilities vary greatly including at Mangai, a 28 ton TAKRAFT crane, a five ton lift, and a 1,500 ton warehouse, none of which are available in Bulungu, where all transhipments are manual. At Bulungu, however, private storage is maintained on the right bank of the river by Fernandez, Madail, and the African Cooreman Company. ONATRA port facilities at Kikwit include two Titan cranes, three 2.5 ton lifts, and a 2,000 ton warehouse equipped with 350 palettes.

The cost of sending agricultural products to markets in Kinshasa by river from Kikwit is less than 1/5 that of road transport (see Table 12), but long delays are involved for reloading on larger barges at Bandundu, and risk of theft is high. The Kwilu is known for its productivity in foodstuffs, which has been encouraged by Kinshasa demand to the detriment of other agro-industrial production (palm, jute). Marketing agents are very diverse ranging from small bush collectors without transport to large Kinshasa-based companies, and in the middle, small companies at the zonal or sub-regional level with five-ten trucks, and religious organizations operating some low level transformation/preservation activities. These efforts are not coordinated, and focus upon areas with the greatest ease of access. Only under administrative pressure do traders usually operate within areas with difficult access. Manufactured goods from Kinshasa (including imports) are only sold at the zonal centers, creating distribution problems at the level of collectivities and localities.

TABLE 12

COMPARATIVE COSTS OF TRANSPORT 1980

6T Toyota truck:	.47 Z/T/km
Calculated min. cost (all charges, repairs, driver, etc.)	
Actual Transbaz Society trucking charges:	1.00 Z/T/km (approx.)
Kikwit-Kinshasa (550 km)	560.00 Z/T (actually)
ONATRA charge for rice, manioc, corn:	
Kikwit-Kinshasa	105.41 Z/T
Mangai-Kinshasa	92.95 Z/T

There are few relays in the marketing chain. Most traders keep direct control from initial produce collection up until time of sale, and supervise the transport, if they do not own their own vehicles. The entire cycle generally takes two weeks, with the usual delays and risks. However, some intermediaries are used - some large societies have affiliated with lower order collectors, and a few Kikwit traders use specialized transport services for both their purchases and provisions deliveries.

Agro-industrial products are usually marketed by firms which have their own processing plants in Kinshasa (palm fruits, coffee, jute, and ranwolfia). The latter two are in decline. Livestock projects are in process, operated by religious PVO's. Fish is supposed to be marketed by the Office National des Pêches (ONP), but fish production is poor in the Kwilu River near Kikwit, because the river's pH is very acidic.

For foodstuffs, storage facilities are rare, poorly built and managed, thus transport is sought immediately post-harvest. In theory, 80% of production is marketable, though in reality certain collectivities lack some commodities which they need. Though Kinshasa markets offer cash income incentives to rural producers, and facilitating higher agricultural productivity and rural incomes is a USAID goal, this is a mixed blessing.

A USAID trip report from October 1982[4] identified the collectivities of Bulungu, Kwilu, Kilunda and Feshi as highest in incidence of malnutrition, attributable in the first three locations to producers' preference for selling their high protein yields (cows, peanuts) for cash rather than saving these products for home consumption. At Feshi, insect and disease problems have reduced manioc yields. This negative side of the improvement in agricultural produce marketing caused by the National Road No. 1 improvements was further substantiated, more solidly, by the USAID-funded CEPLANUT 1983 Bandundu Nutritional Survey[5], which found that the rate of child malnutrition was highest along major roads compared to the regional average. There will be a continuing need to coordinate marketing/economic development projects with health/nutrition training.

4. Deanna Osmond and Tshishiku Kabundi, "Trip Report on Visit to the Sub-Regions of Kikwit and Kwilu in Bandundu", October 1982, p. 2.

5. CEPLANUT, "Résultats de l'Enquête Nutritionnelle Réalisée dans la Région de Bandundu", April-May 1983.

Manufactured goods from Kinshasa are marketed in Kikwit mainly by branch stores of the J.V.L. Solbena, Interfina, Sedec, and Nogueira, etc. chains, especially food, textiles, and household goods, and private transport firms are used for deliveries.

Traders based at the zonal capitals are the intermediaries who exchange produce they have collected for manufactured goods bought in Kikwit which they will resell within their zone. Some large Kinshasa and Kikwit firms have sales depots in smaller interior urban centers, but most of the village-level sales of manufactured goods take place in the periodic markets (once or twice a week as organized by the chief of the collectivity), or through the travel of "colporteurs" who spend about a week in each village on a mobile circuit. These village-level sales agents in turn replenish their stocks in Kikwit, smaller urban centers, or periodic markets.

The bulk of port operations are controlled by ONATRA, the State-owned river transport agency. Since a separate river transport mission took place during the RHUDO mission to Kikwit, including four staff members from the DEO office of USAID Kinshasa, RHUDO data collection concentrated on other sectors, but this chapter will broadly summarize the concerns raised by RHUDO discussions with ONATRA in which some data was collected, and from which insights into Kikwit river transport functions and future prospects can be gleaned.

The ONATRA port in Kikwit plays a critical role in provisioning the southern interior of Bandundu region, since it is located at a critical site for inter-modal transfer, at the point of southernmost navigation for barges on the Kwilu River. Just south of the port, rapids of only a few meters in width block the barges from further descent, but smaller boats known as "baleinières" can continue the descent by passing between the boulders along narrow side channels. Major problems cited by ONATRA users are (1) the lengthy travel times compounded by typical delays to scheduled arrivals caused by slow loading and unloading at origin, destination, and intermediate ports, and (2) the high risk of theft at all points in the system. The slow travel times are particularly problematic for perishables such as manioc, which usually can not withstand the humidity of storage for over three - four weeks. Therefore, marketing agents prefer to use road transport rather than risk spoilage or theft losses, though the costs per unit weight are five times higher than river transport costs (560 Z/ton instead of 105 Z/ton at the end of 1980), especially now that Kinshasa is only seven-eight hours away by paved road, since the former ferries have been

replaced by bridges. These higher transport costs are added to consumer food prices at destinations. The major commodities serviced by Kikwit port are palm oil and nuts, the principal regional exports, and by far the major share of downriver traffic; food crops destined primarily for Kinshasa including corn, groundnuts, millet, and rice; and lumber. The descent to Kinshasa is reported by ONATRA's Chef d'Agence Citoyen Katshunga as taking a minimum of five days (but often up to 15 days) including loading and unloading, but these are extremely optimistic travel times according to field survey information, therefore corn and palm products are the main products sent this way. Actual river barge travel times between Kikwit and Kinshasa were reported as six days upstream and four days downstream, but the total trip includes additional delays in village-Kikwit transport, loading, transit, and (frequently) breakdowns. Furthermore, ONATRA reported major dry season navigation problems, since RVF (Régie des Voies Fluviales) has not been providing frequent enough channel marking-services.

It is striking to compare FAO's end of 1981 estimate that at least 134,000 tons of rice and corn from Idiofa zone alone are being marketed, with ONATRA's reported 1983 freight volumes for Kikwit exports to Kinshasa (never exceeding 1,000 tons per month). It is clear that the port is not being fully exploited, and its utilization is under capacity, even though electric power to operate its lifts is only available three-four hours daily. The ONATRA warehouse was more than half empty during the RHUDO inspection. The private beaches in Kikwit which are used by the three major palm products exporters (Amato Frères, Siefac, and PLZ) loaded almost twice as many tons of freight in May 1983 as ONATRA's facility. (See Table 13). They find their independent use of river transport is faster, safer, and more cost effective than using the ONATRA loading facilities, though their produce is unloaded by ONATRA upon arrival in Kinshasa (and this is why ONATRA Kikwit is maintaining records on volumes privately loaded in Kikwit).

Overall, the ONATRA Chef d'Agence in Kikwit estimates that 80%-90% of the Kwilu's agricultural production is sent to Kinshasa by road. Seasonality of production, therefore, has little impact on ONATRA freight volumes. (See Table 14). The palms produce year round, and import volumes are not seasonal, since they depend only upon the availability of credit to traders. (See Table 15).

A significant volume of freight destined for Shaba consumers passes through Kikwit by ONATRA barge to Ilebo where it is

TABLE 13

MAY 1983:
RIVER FREIGHT VOLUMES LOADED AT KIKWIT PRIVATE BEACHES

Firm	Weight in Tons	Product
Amato Frères	250	Palm nuts
Siefac	300	Palm nuts
PLZ/R.D.	214	Palm nuts
Mampeza	773	Corn
TOTAL:	1,537	

TABLE 14

ONATRA 1983 FREIGHT VOLUMES

	Exports From Kikwit	Imports From Kikwit
January	948 tons	85 tons
February	778 tons	231 tons
March	486 tons	406 tons
April	560 tons	188 tons
May	870 tons	232 tons
October	1,379 tons	38 tons

TABLE 15

MAJOR IMPORTERS USING ONATRA KIKWIT

Sedec
Interfina
Mapenza
Amato Frères
Madail
Siefac
PLZ

loaded on the railroad for Shaba. Since Shaba lacks oil palms and oil factories, this freight is primarily palm oil. In the month of October 1983, for example, the freight handled by Kikwit port for Ilebo-Shaba was 75% of the volume sent to Kinshasa from Kikwit. No other destinations, intermediate to Kinshasa, are off-loading significant volumes of Kikwit freight. (See Table 16).

Control of long distance produce collection, road transport, and marketing seems to be concentrated in a relatively small number of hands in Kikwit. Citoyen Kayanda Kabamba, President of the Bandundu Region Drivers' Association, provided the RHUDO consultant with the names of the ten major Kikwit-based transporters (see Table 17), almost all of whom owned and directly managed diversified operations which included: (a) two or more trucks which transported the produce they had purchased in the interior (usually serving the most accessible and well-maintained routes to avoid wasting precious fuel allocations, and causing wear and tear on hard-to-maintain vehicles by travelling poorer roads); (b) some agricultural processing industries (not usually in Kikwit - mostly palm oil factories); (c) boutiques in the smaller interior market towns which sell the manufactured goods carried back from Kinshasa by their trucks after the sale of produce from the Kwilu; (d) stores in Kikwit which supply luxury goods and wholesale provisions to lower order traders; (e) warehouses in Kikwit (and sometimes in smaller towns as well); (f) other business establishments such as bars which were supplied directly from Kinshasa through their own control of transport. Only one transporter had not followed this pattern of diversification and investment in both Kikwit and smaller town business establishments. In one case, an entrepreneur also maintained Lubumbashi trade links for palm oil sale, but the major pattern was Bandundu interior - Kinshasa oriented, using Kikwit as a base for vehicles, major chain stores, and warehouses.

The whole governmental and development agency system is channeling scarce fuel and credit resources to this high entrepreneurial level, and no one seems to be effectively supporting alternative marketing, transport, or transformation systems (producer cooperatives or the building up of smaller scale entrepreneurs). In Kinshasa, the FAO/ONPV technical assistant, M. Thorigné, explained that his agency's official policy was to support these high level intermediaries as much as possible, channeling available credit, fuel allocations, and even funds for rural road maintainance through contracts with these firms. This approach has both government and donor appeal because these firms keep clearer accounting records

TABLE 16

ONATRA FREIGHT: OCTOBER 1983

Origin	Destination	Tons	Product
Kikwit	Kasai (Mostly Ilebo)	588	Corn and palm oil for Shaba consumers
Kasai	Kikwit	None	
Kikwit	Bandundu	6	Planks, palm oil
Bandundu	Kikwit	8	
Kikwit	Kinshasa	785	Corn and palm products
Kinshasa	Kikwit	30	Manufactured goods, imports
TOTAL		1,417	

TABLE 17

MAJOR KIKWIT ENTREPRENEURS:
TRANSPORT AND AGRICULTURAL MARKETING

Busanga

Kimbondja

Zui

Mungwa Salomon

Mungwa Musimandayi

Musikimbangu

Bisambu Augustin

Zangio

Kinbal (the only one who has not diversified. Has two trucks).

Kindiata

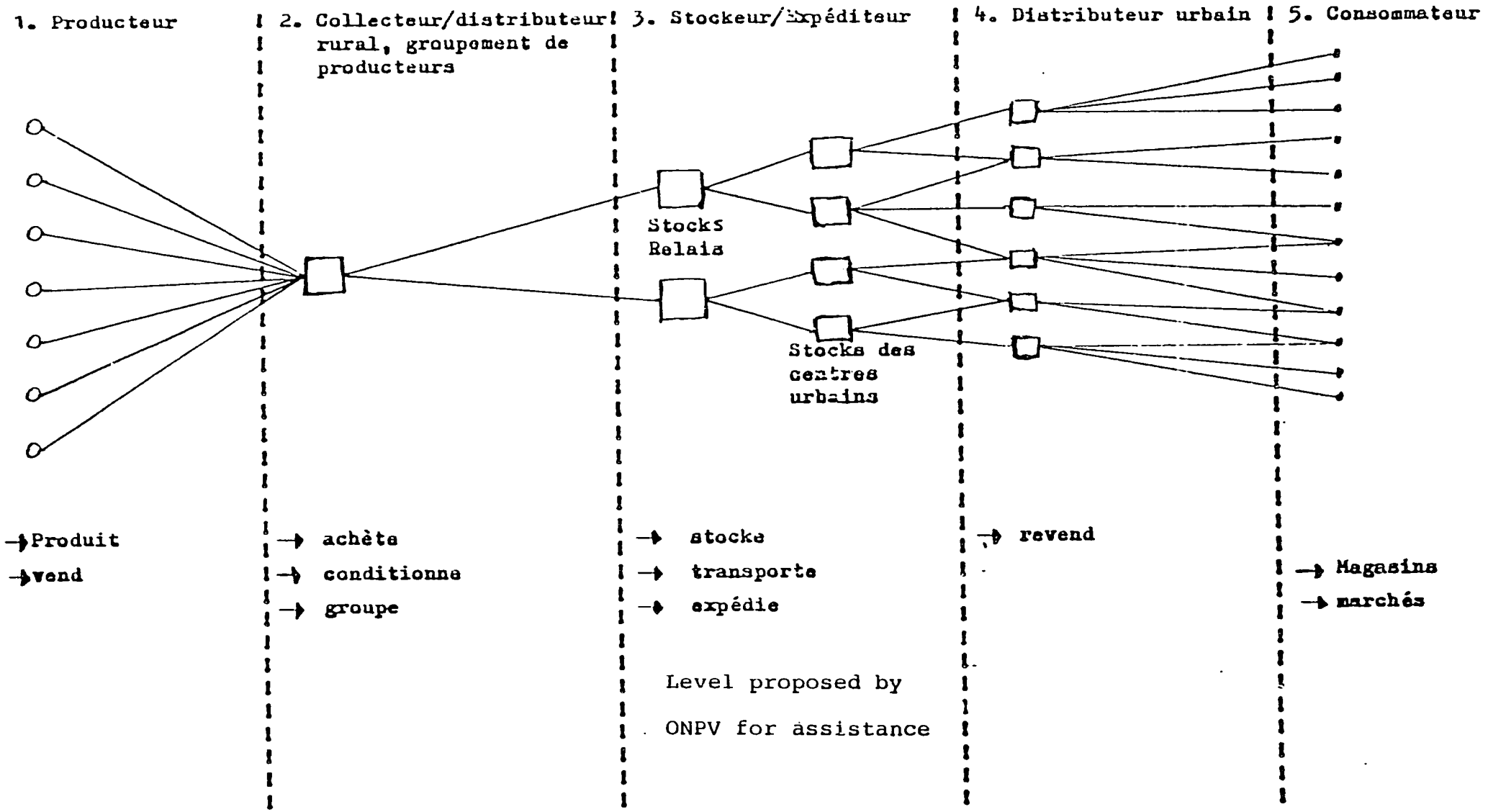


FIGURE 6

MARKETING OF FOOD PRODUCTS:
ONPV/FAO INTERVENTION SCHEME

than smaller firms, easing the project monitoring and reporting tasks, and making it faster and simpler to spend large amounts of funds quickly (a common pressure in large development assistance agencies).

The long run equity effects are very questionable, but alternatives, as usual, are more complex, time-consuming, labor intensive to plan and implement, and higher risk. CODAIK (Compagnie du Développement Agro-Pastoral Intégré du Kwango-Kwilu), a private agricultural development association financed 40% by the World Bank (initially with FAO technical assistance) and 60% by private investors, is contributing to this process of helping those who already have plenty. Many CODAIK board members (who are also its private shareholders) are top marketing and transport intermediaries in Kikwit and Idiofa (for example, Busanga and Kimbondja, in Kikwit). CODAIK is using subsidized World Bank interest rates to give preferential rate financing to these high level entrepreneurs for additional vehicle purchases, and is allocating its scarce vehicle imports to these buyers, with none of the strings attached which would help to achieve their alleged goal of equity for rural producers. For example, one would at least expect that CODAIK would require specific underserved roads to be added to the service areas of entrepreneurs to whom they are providing trucks; alternatively or in addition, one would have expected minimum prices for producers to have been set by CODAIK to avoid peasant exploitation. CODAIK's reaction to these suggestions from the RHUDO consultant was that financing transport for producer's cooperatives would encourage "monopolies" and adverse competition for the private sector. This is a ludicrous reaction. Current policies are discouraging competition, and concentrating resources in fewer market intermediaries' hands.

In summary, it is clear that Kikwit is serving a crucial transport and marketing function for rural producers. It is also clear that this role could be expanded, preferably through more equitable design of credit and transport projects, and a priority for upgrading feeder roads in productive, densely settled, but unserved areas. Projects which would increase the speed, security, and efficiency of ONATRA transport on a Kwilu-Kasai systemwide basis would open this export mode to rural producers and/or producer cooperatives, and their transport savings through the use of river instead of road (if spoilage losses through time delays could be avoided) would put a larger share of Kinshasa sales profits into producers' hands. (See Table 18). (Concurrently this would reduce the rate of urban food price inflation, which is largely caused by imposing on consumers the rapidly

TABLE 18

FARM GATE TO MARKET PRICE TRANSFORMATIONS
(END OF 1980)

Manioc:	
Producers Receive	0.40 Z - 0.60 Z/kg
Manioc Flour - Rural Markets	1.00 Z/kg (100% increase for transformation
Manioc Flour - Kikwit Market	2.00 Z/kg
Kinshasa Market	5.00 Z/kg (1000% of producer's price)
Corn:	
Producers Receive	0.40 Z - 0.55 Z/kg
Corn Flour - Local Markets	1.50 Z/kg (actual mill cost 0.20 Z/kg)
Kikwit Market	2.50 Z/kg
Kinshasa Market	10.00 Z/kg (1400% increase over farmer's price)

Source: Thorigné, op. cit., January 1981.

escalating fuel import costs for road transport in an atmosphere of currency devaluation). Even though the ONATRA facility in Kikwit is used below its current warehouse and transport capacity, unless loading and unloading is made more efficient (as it has been on the private beaches), spoilage will not be reduced and slow travel times will not be improved. Electrifying the loading process during the whole workday is a key element, though other systemwide contributions will be needed, in order to solve this problem.

- Education

Kikwit's educational institutions are known nation-wide, and its secondary schools attract pupils from Kinshasa as well as Bandundu Region. The Diocese of Kikwit is second only to Kinshasa in being the most educationally advanced diocese in Zaïre (defined as having the most students enrolled in Catholic secondary schools).

Primary schools are fairly well distributed in Kikwit, but almost twice as many classes are available in the older zones of Lukolela and Nzinda, compared to the newer ones of Kazamba and Lukemie. Male and female primary school enrollments are almost at parity, and teaching staff are almost evenly divided between male and female. An acceptable teacher/student ratio of 36 pupils per teacher exists. (See Table 19.)

It is important to note, in reviewing the educational sector in Kikwit, that educational services are predominantly being provided by religious organizations. Specifically, 66% of the city's primary schools and 59% of the secondary schools are supported by the three major religions: Catholic, Protestant, and Kimbanguist. (See Tables 20 and 21.) This is probably a typical nation-wide system characteristic. Consequently, the government is extremely dependent upon the churches for the education of the population, since official (State) system resources are completely inadequate to meet demand. The State contributes almost nothing financially, to the church-run schools. In fact, the government increases the church-run schools' financial problems by claiming a share of their tuition fees, and controlling residential lodging and meals charges at unrealistically low levels that are not financially viable at current rates of inflation.

As was found in Bukavu and Lubumbashi, secondary school enrollments are predominantly male. Many fewer female than male students are progressing to each educational level above primary school. (See Table 22). Cultural biases against spending scarce educational funds on women are still visible in Zaïre, and this is also reflected in the male/female ratios among Kikwit secondary school teachers. (See Table 23.) The geographic distribution of secondary schools favors the older parts of Lukolela and Nzinda zones, providing opportunities for families in nearby quartiers to rent accommodation to extern students from rural areas. Some secondary schools are peripherally located (e.g. Institut de la Fraternité-INFRA and the Sacré-Coeur Mission schools on the right bank of the Kwilu), requiring expensive transportation investments by extern students, of which they have, consequently, very few.

TABLE 19

1983 PRIMARY ENROLLMENTS, KIKWIT

No. of classes:	731
No. of students:	26,800
Average class size:	36.6
Number of teachers:	735
Male/female ratio among teachers:	almost at parity

TABLE 20

NUMBER OF PRIMARY SCHOOLS IN KIKWIT

State:	18	
Catholic:	17	
Protestant:	14	
Kimbanguist:	4	
TOTAL:	53	(34% State)

TABLE 21

NUMBER OF SECONDARY SCHOOLS IN KIKWIT

State:	16	
Catholic:	8	
Protestant:	13	
Kimbanguist:	2	
TOTAL:	39	(41% State)

TABLE 22

1979-83 SCHOOL ENROLLMENTS IN KIKWIT

	'83-'82			'82-'81			'81-'80			'80-'79		
Primary	Total	M	F	Total	M	F	Total	M	F	Total	M	F
Official	8,243	4,567	3,676	8,031	4,248	3,649	7,714	4,282	3,427	6,846	3,782	3,064
Catholic	9,349	4,177	5,172	9,250	4,128	5,122	9,206	4,216	4,990	8,644	3,722	4,922
Protestant	7,280	3,846	3,434	3,964	1,892	2,072	6,710	3,688	3,022	6,598	3,766	2,832
Kimbanguist	1,925	1,071	854	1,825	1,035	790	1,806	1,033	773	1,755	1,009	746
TOTAL	26,734	13,661	13,136	26,693	13,465	13,228	25,436	13,219	12,212	23,843	12,279	11,564

Source: Education Nationale, Kikwit

TABLE 22 (suite)

1979-83 SCHOOL ENROLLMENTS IN KIKWIT

	'83-'82			'82-'81			'81-'80			'80-'79		
Secondary	Total	M	F	Total	M	F	Total	M	F	Total	M	F
Official	5,795	3,694	2,101	5,825	3,748	2,077	5,508	3,622	1,886	4,610	3,268	1,342
Catholic	2,924	1,733	1,191	2,637	1,576	1,061	2,570	1,544	1,026	2,418	1,473	945
Protestant	4,614	2,924	1,690	4,529	2,756	q,773	4,567	2,858	1,709	3,999	2,667	1,519
Kimbanguist	949	641	308	813	489	324	970	653	317	295	190	105
TOTAL	14,282	8,992	5,290	13,804	8,569	5,235	13,615	8,677	4,938	11,322	7,601	3,721

Source: Education Nationale, Kikwit

The problem, cited earlier, of obtaining reliable long term statistics, was encountered at the Sub-Regional Direction for Statistics at Education Nationale, Kikwit. During the past five years, no educational statistics had been released for Bandundu region. Since the bureaucrat in charge of Kikwit statistics had only occupied his post since 1979, only statistics on enrollments since then were available. Slight increases in enrollments over the period were reported each year, with a stable 2:1 trend in comparing primary to secondary enrollments. Between 1979 and 1983, six secondary schools and one primary school were closed (mainly Protestant schools without official papers, which were closed in mid-1980), even though school age population has been growing. (See Table 24).

The only school in Bandundu Region which is superior to the secondary school level is the three year State-run junior college in Kikwit, the Institut Supérieur Pédagogique (ISP) which trains secondary school teachers, and is part of the national university system. Its capacity is 600 students divided between the three classes, recruited mainly from the region. Each student is required to write a thesis for graduation, based on an independent research project, usually choosing a topic with a regional focus. Several of the Kikwit-oriented geography theses for 1982-83 provided useful background data for the RHUDO study, and in general, ISP theses in Bandundu and other regions are the only pieces of new local research being generated in Zaïre, aside from University student theses, which may occasionally involve a limited amount of field work during vacation periods.

There are, however, several specialized secondary schools in Kikwit with national-level reputations, mainly within the Catholic system. IPTK (Institut Professionnel Technique de Kikwit) provides five year and six year courses in general mechanics, auto mechanics, and machine tool use. This is the only Jesuit technical secondary school in the city, and all students are male. Of the 240 students in 1983 in all classes, 90 were dormitory interns paying 700 Z/three month term. Since local teachers' salaries, which are under GOZ control, were only 600 Z/month, there was high teacher turnover from year to year. Qualified teachers were able to find better paying employment in Kinshasa private industry. The auto mechanics sector has had four different instructors during the past six years, adding to the difficulty of maintaining educational standards.

The IPTK program is in need of reorientation to serve local employment markets, since local employers who formerly engaged

TABLE 23

SECONDARY SCHOOL DATA: KIKWIT

No. of classes:	357
No. of students:	14,282
Male/female student ratio:	approx. 2:1
Average class size:	40
No. of teachers:	562
Teacher/student ratio:	1:25
Ratio of male/female teachers:	3:1

TABLE 24

NUMBER OF SCHOOLS IN KIKWIT

Zones	1982-1983 Primary	1982-1983 Secondary	1979-1980 Primary	1979-1980 Secondary
Lukolela	16	20	--	--
Nzinda	18	11	--	--
Lukemi	10	5	--	--
Kazamba	9	4	--	--
TOTAL	53	40	54	46

Sources: Education Nationale, Kikwit

graduates have closed most of their work sites (PLZ factories though declining oil production and private auto repair garages, through lack of spare parts). The major garage currently repairing vehicles in Kikwit is the Catholic Procure's maintenance department, and only a few jobs are available there or in the remaining garages in town. Graduates of IPTK, therefore, are generally forced to migrate to Kinshasa where they can find industrial employment. In fact, the quality of IPTK mechanical training is well known to Kinshasa employers, such as Chanimetal, who come to Kikwit expressly to recruit prospective graduates. A former IPTK masonry section had been closed in the past, but this sector is now thought to have local labor absorption potential, and the State has requested that it be reopened. The US-based PVO, Habitat for Humanity, will be opening a low income housing construction project in Kikwit shortly, and will be one potential employer immediately in need of trained masons. There is also a growing need for agricultural technicians, but the Jesuits have no expertise in this technical area. Of the 48 IPTK graduates last year, only the 12 in general mechanics have already been easily placed in jobs, and even these have been force to move to Kinshasa. The 16 who were in auto mechanics are still looking for work in Kinshasa, and the 20 graduates of the long cycle (usually preparation for further advanced studies) are now also looking for work, because it has become increasingly difficult to obtain grants for advanced study, especially since there are regional quotas. Competition from Bandundu is fierce, because there are so many high quality educational institutions graduating large numbers of students each year.

IPTK, in collaboration with a former FAO technical assistant, fabricated relevant technology for improving agricultural transformation last year, and this IPTK workshop capability should be developed further by AID project planners, especially since Frère Losseau, IPTK instructor, has technical skills and interest in advising on the development of hydro-power systems (water wheels for village water supplies, irrigation, and small hydroelectric facilities). Melting down aluminium waste from motors and workshop scrap, IPTK cast 4,000 hand tools for increasing the speed of decobbing corn kernels. They were sold by IPTK for 25Z each (10% discount for large purchases) mainly to men, though women's work includes more of this type of agricultural transformation. Rural women have been slow to adopt this or other technological innovations which would improve their productivity, being on the whole, more conservative and difficult to reach with extension information. There is a need, through the PVO sector, to look in more detail at ways

in which rural women receive information, and to inventory the work and social groups which they have created (tontines, likelemba, age grade associations) through which extension could more effectively reach women. It seems, at this time, that only mainstream churchwomen's groups are being contacted by the PVO's. In the meanwhile, IPTK still has 1,500 of the corn de-cobbers left to sell, and since the departure of the FAO presence, no one is exploiting IPTK interest in collaborating on relevant technology for agricultural projects.

Because of the Kinshasa recognition of the high quality of IPTK training, two Kinshasa-based associations were formed, and they continue to support the recruitment and job placement of IPTK students there: the Comité des Parents d'IPTK de Kikwit (the Committee of Parents of IPTK Kikwit students) and the Association des Anciens Elèves (Old Students Association). There is a strong network of "old school" allegiance nationwide, and parents will often attempt to send their sons to the same schools where they were educated.

Tracing the rural versus urban origins of students, and the socio-economic status of their families, is a difficult and time-consuming task. Very few records are kept by schools, from which this information can be drawn - basically only registration forms filed at the beginning of each year. These forms are very general - soliciting the village of clan origin rather than the actual prior urban or rural residence, and not really clarifying very well who is supporting the student's educational expenses. It becomes necessary to interview each school separately, and to circulate new survey forms for students to complete, to really find out where each student's immediate prior residence had been, how his is being financed; whether he passed his youth in a rural or urban area; and what his parents' vocation and current residence is; etc. This is further complicated by the fact that many of the Bandundu and Kasai tribes are matrilineal, and therefore economic ties are traditionally stronger between a boy and his maternal uncle, rather than between a boy and his father.

In any event, for IPTK student origins, the cooperation of instructors allowed additional statistics to be compiled, but the process was too cumbersome to be repeated elsewhere during a short mission. (See Table 25). Of the 43 students graduated in 1978-1981, only those with fathers who were skilled workers, or middle and upper administrators, had their school fees paid by their own parents. Those from rural agricultural or unskilled labor origins had assistance from the wider clan (usually a particular well-off or salaried patron from an urban area) or, in certain proven cases without

TABLE 25

IPTK STUDENT ORIGINS (FOR 1979-81 GRADUATES)

I.	Area Where Born and Raised:		
	Bandundu village	18	42%
	Bandundu small town	15	34%
	Kikwit	5	12%
	Large city outside region (includes two from Kinshasa)	5	12%
	TOTAL	43	
II.	Father's Socio-Economic Status:		
	Poor (agriculture or unemployed)	14	
	Unskilled Labor	9	
	Skilled Labor	12	
	Middle Administration	6	
	Upper Administration	2	
	TOTAL	43	
III.	Source of School Fees:		
	Clan	19	
	Parents	20	
	Jesuit Fathers (for the destitute)	4	
	TOTAL	43	
IV.	Interns	30	
	Externs	13	
	TOTAL	43	

family resources, direct support was provided by the Jesuit fathers from their own salaries. In all, 88% of the students had come from the region, and mostly from small towns or villages, showing the importance of an education as a Kikwit-based resource for upwardly mobile rural residents. The few who came from other large centers included one Burundian refugee placed by UNHCR, and four students sent by fathers who had graduated from IPTK and were now working in other large Zaïrian cities. About 1/3 of the students were externs, since those of rural origins usually took advantage of the dormitory accommodation, as did those sent by Kinshasa families (for whom dormitory discipline and control of their children was a major attraction for sending them away to school). Current trends indicate that a higher percentage of students will be coming from Kikwit itself in future.

That so many of the IPTK students come from poor families or the families of unskilled laborers, reflects the fact that technical employment still lacks prestige in the eyes of the upper classes. The Fathers expressed particular disappointment in the prevalent practice, among upper class parents, of not putting pressure on their children to do well in school, and later trying to buy their entry into prestigeous schools for which they could not pass the entry exams.

Two other Catholic schools in Kikwit deserve special mention because of their high level reputations nation-wide. One is the Sacré-Coeur Mission complex of primary and secondary schools, all of which are targeted towards dormitory students, including humanities and literature specializations for girls, and a science school for boys (maths, physics, biochemistry). The girls' school is favored by well-off families. Half of its students come from Kikwit, and half from other parts of the Kwilu sub-region, since it is run by the Sisters of the Kwango-Kwilu. The science school is currently being relocated away from the Mission (which is on the right bank of the Kwilu), a site which is difficult to reach for students from the center of town. The new facility in central Kikwit already houses the first two grades, and the others will relocate there within the next year, operating on an "extern" (day student only) basis to save operating costs, which can only be partially covered by existing dormitory lodging fees (regulated by the GOZ at a maximum of 3,000 Z/year). The existing dormitory and science school facilities at the Mission will be converted to a divinity school. This move will increase the school's accessibility to Kikwit residents, but may cut down the number of rural students, who were benefiting from the prior subsidized disciplined dormitory system. Rural students will now need to have family

connections, with whom they can live in town, or to rent separate and economically viable lodgings from strangers. The Josephite Brothers also administer a resident secondary school at the Sacré-Coeur Mission, which offers courses in general pedagogy and literature.

The INFRA (Institut de la Fraternité) occupies a large site on the southern edge of town, also a bit remote for day school students. The institute actually resulted from the fusing of two schools which became the current commercial and science sections at Kikwit. First came the commercial school, with a two year program which was founded in 1940 in Kinzambi by Brother Kigrephier, the founder of the Josephite Brothers. The Josephites, a purely educational order, were formed to serve Zaïre, and all of their schools are located in this country, drawing upon Zaïrians for recruitment to the order. The four-year commercial section began in 1958, also in Kinzambi. The Brothers were forced to move the school to Kikwit in 1961 in order to retain high quality teaching staff, since professors were refusing to remain in the more isolated amenity-less location in Kinzambi. A Josephite science school for mission engineers and doctors had been founded near the mission hospital in Yasa, in 1961, but was relocated to Kikwit and merged with the Commercial School under the name of INFRA in 1968 for the same reason - inability to retain teachers in the bush. The Josephites run a national network of schools, including dormitory locations in rural missions, and day schools in Kinshasa, but INFRA Kikwit is the best known of their schools. They currently recruit only male students who have already completed the first two years of general high school studies elsewhere, and offer two types of four year programs: commercial (for accountants and administrators in local government and the private business sector) and sciences (math, physics and biochemistry, usually preparation for University Medical School).

Though INFRA has the capacity for serving 800 students (including 500 in its dormitories), only 634 (with 408 interns) are currently enrolled. All nine regions are represented in the student body, because of its high quality national reputation, but most are from Bandundu, and especially the Kwilu sub-region. They have usually already completed the first two years of high school in another Josephite institution.

Job placement for the INFRA commercial students has an excellent track record, since they are in great demand as administrators (office managers), bookkeepers, and accountants for missions, schools, banks, private businesses, and

development organizations such as CODAIK. The ONATRA Agency Chief in Kikwit, for instance, is a Mukuba, born in Ilebo, who was trained at INFRA. The INFRA old students' association in Kinshasa has assisted with placement as well. Science graduates usually work in medicine, but are having increasing difficulty finding positions in the University medical schools. Their training is primarily basic science, so they are not employable by private industry without additional training, though a few are able to find ISP or other teaching positions. About 80% of the graduates go to Kinshasa, and few stay in Kikwit. Since standards and costs are high, many students drop out, and though those from the commercial sections can often find employment, in small business, those from the sciences usually can not. There are no technical schools, aside from IPTK, in Kikwit. Dropouts seeking formal artisanal or technical training must go to either the School of Work (Ecole du Travail) in Lusanga, or to Kinshasa technical schools. The academic nature of the science training is a real handicap to those who can not complete the whole secondary-University cycle. Bio-chemistry students are not even employable by oil factories, for example.

However, the Josephite Brothers are extremely dedicated, and have succeeded in establishing a high quality program that is meeting national level commercial and medical personnel needs, in the face of major financial constraints. As a non-European based local religious order, they are not given the extensive financial and logistical support available to other Catholic institutions. INFRA has only one vehicle for the entire school, and because of its peripheral urban site, no public services (SNEL or Regideso). Through Belgian aid, they obtained a small generator which provides a limited amount of light for students to study by; cisterns are relied upon for water supplies. The State gives them no financial support, but rather is a financial drain, since all private schools must pay 25% of students' payments for school supplies and all of the "minerval" to the government. Though the Josephites have borrowed extensively and deferred paying bills for generator fuel, etc., to keep school fees low (690 Z/term instead of the maximum 1,000 Z/term allowed by the GOZ), they are finding it impossible to continue without financial assistance. These fees do not even pay for the manioc which a student consumes for his basic food staple. If this dismal financial picture continues, Zaïre's PVO-dependent educational sector may soon show the strain through school closings.

In summary, though in many ways an impressive density of nationally known educational institutions has been created over time in Kikwit, many problems are emerging. Insufficient

technical training, adapted to local employment possibilities, is being offered. Dropout rates are increasing, because of family budgetary limitations, and congestion in the University system, which can not handle all applicants. Dropouts are usually unemployable, since their training has been academic instead of practical, even in the sciences. Almost no agricultural training is offered in Kikwit. The only exception is the government secondary school, Institut Technique d'Agriculture de Kikwit (ITAK). Minimal government resources have been channeled towards even this sole institution. Construction was begun on a new facility for the school at the edge of the city on the road to Kinshasa, but has been abandoned for the last three years through lack of continuation funding.

Nonformal agricultural training, or related artisan or appropriate technology workshops, which could support and staff rural development programs, are absent from the Kikwit educational sector, in spite of the many human and institutional resources available in Kikwit, which could be pulled together by a dynamic PVO sector to offer short courses for rural development workers. A school which initially seemed to offer this type of service, the Catholic-run IFAK (Institut de Formation et Animation de Kikwit) proved to be only a training center for rural pastors ("catechists") with a religious curriculum for the men and home economics for the women. IPTK, INFRA, and other institutions all acknowledged the need for this reorientation and expansion of Kikwit's educational sector. The Industrial and Technical Food Institute (Institut Technique Industriel Alimentaire), 121 km east of Kikwit near Yasa-Lokwe, a Catholic agricultural school, was cited as a good role model for such an institution. Its community outreach has been impressive, and local peasants have been imitating the improved corn production technology used in school demonstration fields. Substantial community labor is participating in the on-going construction of the school.

Even closer to Kikwit, Oxfam is supporting an agricultural school (Ecole Technique Agricole) at Isingu, 15 km from Kikwit on the Kayita Road south of the city. Though both the Préfet of Yasa-Lokwe, and the Oxfam headquarters reside in Kikwit, it has not occurred to any of these agricultural school designers that Kikwit would be a more visible central location in which to provide agricultural training with a broader rural outreach.

JMPR (Jeunesse du Mouvement Populaire de la Révolution) is the party's youth movement, and it has established seven training centers in Kikwit for school dropouts, as well as three

agricultural projects (one in each of the three most rural zones in Kikwit, sited for accessibility to unemployed youth in each zone). The training centers (which were not inspected) offer a three year training program in auto mechanics, typing, carpentry, and paraprofessional nursing. After an additional year of practice, and the passing of an exam, a diploma is awarded.

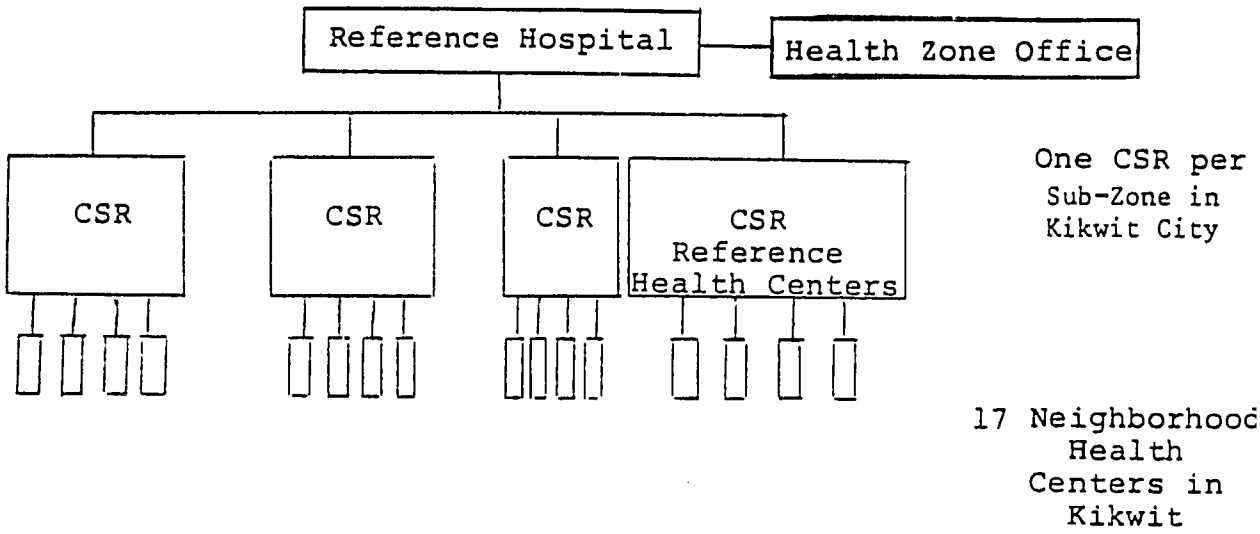
The three JMPR agricultural projects include 20 hectares of mixed crops in Kazamba, and rice projects in Nzinda and Lukemi zones which are receiving technical and logistical support from the Kikwit branch of the Mainland Chinese rice project (Projet National Riz). The Nzinda rice project was visited, and was found to include an impressively managed four hectares of paddy rice, along the Nzinda River. (The project is visible from the Kinshasa road on the right as one enters town.) Approximately 20 workers from the neighborhood of Kikwit III are exploiting the rice paddies, using improved varieties from prior harvests, and fertilizer purchased from the Chinese, to whom the production is marketed. State agronomists from the Department of Agriculture also provide technical assistance and supervision. The JMPR collects 1/3 of the profit retained by the producer. Each producer receives about 4590Z profit per year (over three harvests) from non-decorticated rice. Though almost 3000 Z/year more could be earned from the producers' sale of decorticated rice, this was avoided because of the cost and difficulty of arranging transport to the mill, and independent marketing. The Nzinda project also included five upland hectares of manioc (cassava) and pineapples, on which a larger number of workers were employed. It is disappointing that none of the PVO's in Kikwit have been working with these JMPR projects, which are the only major training programs for school dropouts and unemployed urban and migrant youth. The JMPR manioc, for instance, was infected by mosaic disease, though the USAID-supported PRONAM (Projet National Manioc) project in Kyaka has been multiplying and disseminating a mosaic-resistant variety.

- Health

A three-tier model has been constructed for the Kikwit-based facilities which are the center of the Kikwit Health Zone, serving up to a 500 km radius into the rural areas, according to Citoyen Matamba, Head Doctor at Kikwit General Hospital.

TABLE 26

MODEL FOR KIKWIT HEALTH ZONE FACILITIES



This third system reflects PVO and GOZ health advisors' recommendations which were incorporated into the National Health System Plan of Action for 1982-86 ("Plan d'Action Sanitaire") at the urging of the World Health Organization. The model shows one regional reference hospital, providing specialized full service facilities (surgery, radiology, etc.) attached to a Zonal Health Office under a doctor administrator who is responsible for coordinating health planning and training throughout the zone. Below these central place facilities are Reference Health Centers (CSR) each headed by a nurse and equipped to hospitalize cases not requiring specialized General Hospital services. The CSR are expected to be able to provide transfusions, circumcisions, family planning, and a broader range of services than the lower order health centers and health posts which they supervise and backstop. Four of these CSR are located in Kikwit, one in each of the four urban zones, and several are located in the rural areas. Oxfam is one of the only PVO's providing urban-oriented project support in Kikwit. It is financing the

development of CSR facilities, including the furnishing of mobylettes to CSR head nurses to enable them to supervise the health centers for which they are responsible.

The Health Centers (CS) are the lowest level of official health service in Kikwit, and ideally provide the first level of medical treatment. Also staffed by nurses, they are expected to provide pre-natal maternal care, vaccinations, and to run clinics for young children (ages 1-5), nutritional training classes, and to offer limited curative services. Each CS is expected to be advised by a community health committee. Below the CS level (also present in rural areas) comes the lowest primary health care institution which is currently only found in some villages in the Kikwit health zone (none are in the urban area) - the Health Post ("Poste d'Animation Sanitaire"). Staffed by paraprofessionals, usually themselves villagers, this unit provides primary and preventive health education, including the six basic children's vaccinations, age 0-5 child care, and nutritional training.

Dr. La Ruelle, the Zonal Doctor, is extremely handicapped in implementing this ideal scheme, by the National health plan's lack of juridical status. The plan is still at the level of a departmental recommendation, and no legal basis has been established which would "put teeth" into the recommendations and begin replacing old with new structures. Traditional medical training given through the National University medical schools lacks a primary and public health component. Doctors are still being trained as specialists, more versed in tertiary care than in general practice, and lacking the community health administration skills which they would need as zonal doctors supervising lower order health care personnel. Many of the Catholic and Protestant PVO's, which are providing about half of the health services (below the level of the General Hospital) in Kikwit, are run by middle-aged missionaries, who are set in their ways, and defensive against outside innovations. La Ruelle has been frustrated in his role of coordinator by their lack of voluntary cooperation, and their narrow curative perspective, and therefore needs a legal basis for enforcing the progressive institutional change embodied in the National Health Plan. Of the four Kikwit Reference Health Centers, only one is State-run; two are Catholic facilities and one is Protestant. At all levels, the cooperation and logistical/financial support of the PVO community is as essential for the health service sector, as it was found to be for the educational sector. (See Table 27).

TABLE 27

INFLUENCE OF PVO'S ON KIKWIT HEALTH FACILITIES

Reference Health Centers:

State	1
Catholic	2
Protestant	1
TOTAL	4
%GOZ	25%

Health Centers (17 in Kikwit, plus Kinzambi 12 km away)

Red Cross	3
CASOZ (orphans)	1
Catholic	2
Protestant	2
Private	1
State	7
FONAMES (GOZ)	1
UNTZA (GOZ union)	1
TOTAL	18
% GOZ	50%

La Ruelle relies heavily on the Diocesan Development Bureau pharmacy (BDD Kikwit) from which he buys supplies for the ten State health center dispensaries, and for the General Hospital's pharmacy. Government pharmaceutical supplies have been discontinued, however, a Kinshasa-based government factory, the Laboratoire Pharmaceutique, is expected to soon be producing Nivaquine and some other import-substitution drugs. The BDD also supplies the pharmacies of all the Catholic health facilities in the diocese from its Kikwit warehouse.

The General Hospital is increasingly being forced to be financially self-sufficient, since State subsidies with the exception of staff salaries, were virtually ended in March 1983. With seven full time doctors, it is the best available facility in the Health Zone, and receives patients from many outlying rural areas. The maternity at Kasanza (120 km away), for instance, sends its patients to Kikwit. Unfortunately, hospital records on patient origins are not maintained, though this would have been an ideal source of "radius of rural influence" data, if they had been available. Very few health statistics at all are available for Kikwit Health Zone.

Considerable effort needs to be expended to actualize the "on paper" facilities supposedly available in other secondary cities, such as Idiofa and Gungu, to reduce the large catchment areas which must be served by the "real" existing facilities. For example, in the Bandundu Region 2975 hospital beds are listed on the books, but during discussions with the doctor in charge of the Kikwit Health Zone it was discovered that the hospitals in the secondary cities of Idiofa and Gungu (750 of these beds) are not functioning, and the beds at Musango are underused, creating an unmanageable 500 km radius for the service area of the Kikwit General Hospital, which must usually place two patients in each of its 350 beds. Image problems, pricing policies, and the uncooperative attitudes of lowpaid government health personnel are also contributing to this health sector supply and demand problem, even within secondary cities. Again drawing upon Kikwit case material, for example, a number of beds are available in the four Reference Health Centers (CSR) in the city, and are supervised regularly by the doctors from the General Hospital (at least four times/week), but these CSR beds are usually empty while the Hospital beds are doubly occupied, apparently because the fee structures do not provide an incentive for using CSR screening and services. The same fees are charged at the CSR as at the more prestigeous hospital, and furthermore, CSR staff have no incentive for making extra work for themselves - it is easier for them to send patients to the

hospital. The government dispensaires were abandoned for years, and their image also suffered because of poor staff training and the prevailing practice of low-paid indigenous medical personnel demanding bribes for patient services. This is difficult to control, and is supposedly found in many mission-run hospitals as well. The health service level below the CSR, the Neighborhood Health Center (CS), is barely used even though 17 of them are located within Kikwit. Consumers prefer to patronize private Kikwit pharmacies which are run by non-medical personnel, because of lack of publicity for the government health services, past poor service track-records at government dispensaries, and the erroneous popular belief that free professional consultations are available at private pharmacies (while consultation fees are charged at government facilities). Laws controlling drug sales are not enforced, and the pharmaceutical business has become one of the most lucrative commerces in Zaïre. Consequently, GOZ lists of priority drugs for import are not followed, and pharmacies attract customers to pay twice the dispensary price for drugs.

The importance of reforming past negative images in the health sector can not be over-emphasized, since this factor alone can lead to grievous misallocation of resources. For example, the Musango Hospital 120 km from Kikwit on the Kinshasa Road has three assigned doctors and is supposed to have 800 beds, but its 548 actual beds were greatly under-used during our visit, largely because of its past image as a specialized T.B. and leprosy treatment facility, a stigma which its current more general service orientation has not overcome. Though low cost services are supposed to be available there (since State FONAMES support is supplemented through subsidies provided by the Italian nursing sisters who administer the facility), the transport cost is a deterrent to its use, reinforcing the idea that secondary cities are more appropriate locations than isolated rural sites for zonal health services. Secondary cities are usually centrally located on local transportation systems, and are synergistic sites in which individuals can conduct business and social transactions while receiving health services for the same transport fee.

A further advantage of using secondary cities as rurally-oriented service sites should be noted - the greater likelihood of securing and retaining adequately trained personnel. Case material frequently cites the difficulty of attracting educational, administrative, and health sector personnel to progressively more isolated, lower amenity posts. Employees' salaries are delayed by many additional months in isolated posts, and these already low salaries (prevalent GOZ wage policies) are further taxed by commissions

paid to payroll agents and other couriers for their delivery to the payee. Musango Hospital had only one of its three doctors in residence during our visit: the other two were in Kinshasa. The remaining doctor complained bitterly about his lack of transport, amenities such as a refrigerator, and the distance required to buy food, etc. He will clearly leave for Kinshasa as soon as he completes the five years of rural residency under government employment which are required for release of his University diploma, and if this national requirement were not enforced, the GOZ would be even less able to fulfill its rural health staffing requirements. The private sector pays much better salaries than Government medical positions, and for those who can not yet afford to establish a private practice, attractive positions as Bank of Zaïre staff doctor are available. In fact, politically connected graduates routinely buy their way out of this government service obligation.

In spite of this heavy demand on the facilities and staff of the General Hospital, there are some factors which diffuse demand. For major operations, some Kikwit residents prefer to return to facilities in their area of origin, where they have access to family social and physical support. Economic factors are also a consideration. The hospital at Banga, for instance, is subsidized by the Catholic mission which runs it, and its charges are therefore cheaper than those which the less subsidized General Hospital can offer. As is often the case, those who can least afford to pay are charged the most. State functionaries have the right to receive free consultations at the General Hospital, and also receive a discount on the cost of medication.

Though statistics were not available, Dr. La Ruelle was able to identify the major zonal health problems, based on his six years of experience in Kikwit. For adults, the major health hazards are, in priority order: venereal disease (especially gonorhhea); illegal abortions and birth difficulties for women (all abortions are illegal in Zaïre); tuberculosis; respiratory infections; digestive tube infections; auto, forest, and work-related accidents (especially for men); cancer; and hernia (for men). For children, the major health problems are: first and foremost protein-calorie malnutrition; malaria; infestious diseases (measles, polio, etc.); worms; respiratory infections; digestive tube infections; and accidents (broken bones, wounds and burns, poisoning from traditional medicine).

<u>The major disappointment with the Kikwit health system is the almost complete lack of community health training programs.</u>

Seeing that the major child health problems are easily preventable with nutritional and other primary health training, it is disappointing to visit the hospitals in Kikwit and Musango, and see the mothers who have accompanied their sick children sitting idle all day. This would be a perfect chance to educate them at a time when they have leisure and a strong motivation for learning. Hopefully, the CEPLANUT USAID nutritional training project will take advantage of these types of formats for their training programs, as well as proceeding to integrate health training into the primary schools' curricula, etc. During the RHUDO consultant's visit to Musango Hospital, one child died from poisoning from traditional medical treatment which had been administered the night before - this is the sort of highly preventable cause of child mortality that should be targeted in urban-based PVO projects, using the hospital as a teaching facility to reach rural patients and their families. Even a rural hospital like Musango has no follow-up, back in the villages, with malnutrition cases they have treated, and has no links with rural agricultural extension workers for nutrition training.

- Artisan Activities

Most of the artisan activities in Kikwit are geographically concentrated on Avenue Mobutu, which is the only major electrified road. More traditional activities include tailoring and shoe repair, which are the major generators of artisan employment, aside from carpentry (which falls into the "modern" part of the informal sector). In other African countries, the ILO has focused upon carpentry, mechanical and electrical repair, and metalwork as artisan activities with modern economic development potential, and has targeted assistance to these activities with the goal of job creation.

There is a certain amount of fluctuation in the number of Kikwit artisans over time, especially in the traditional sector, which can be seen by comparing two surveys which were done of Avenue Mobutu in 1982. Table 28 gives the relative scale of employment, apprenticeship, and number of workshops engaged in the most economically important activities at the time of the second survey. This chapter will briefly review the major 1982 survey findings on means by which these artisans are trained, business constraints that they face, and levels of income that they receive.

Traditional Activities

Tailors

Most tailors are school dropouts who have had some primary schooling. They have usually learned their craft from an individual, through an apprenticeship, and more apprentices in the Kikwit informal sector are studying tailoring than any other trade. A large share of those practicing their craft in Kikwit were trained in various other secondary centers - Bulungu, Gungu, Idiofa, Tshikapa - as well as Kinshasa. Apprentices pay 200-600Z and give various gifts in kind to their masters (a goat, a chicken, palm wine). Training takes four years for men's tailoring, and sometimes the apprentices are paid during part of that time.

Their major business constraints are lack of sewing machine parts and operating capital to purchase supplies (since clients often place orders on credit). Apprentices can not strike out on their own until they have been able to invest in a sewing machine. Tailors work to order with the client providing the cloth, and have found that the increase in the price of materials has substantially decreased client demand.

TABLE 28

KIKWIT ARTISANS, AVENUE MOBUTU 1982

	Number of Employees	Number of Apprentices	Number of Workshops
Traditional:			
Tailors	96	28	90 small and 5 large
Shoe Repair	23	6	16
Hair Dressing	--	--	9
Modern:			
Carpentry	23	11	14 small and 5 large
Watch Repair	12	1	12
Electrical Repair	7	--	7
Soldering	8	1	4
Tire Repair, Body Work	9		2
Vehicle Repair	19	3	5 (3 general and 2 brake shops)
Blacksmith	1		

Source: Isono Mafula, "Les Activités Artisanales sur le Boulevard Mobutu à Kikwit", Mémoire ISP Kikwit, 1982.

Annual price increases reported since '79 were:

Year	Price Increase
1979	40%
1980	28%
1981	39%
1982	20%

Demand for tailors' services also varies greatly by pay period and season, increasing at the end of each month, and just before the start of the school year and holidays. Demand drops dramatically after these periods, generating cash flow and labor problems. For example, a tailor may serve 33% of his whole year's clients in December. As shown in Table 29, a tailor's capital/profit ratio is extremely favorable compared to other traditional activities, and even to carpentry.

Shoemakers

Shoe repair was also largely learned from individuals through apprenticeship, though a few Kikwit artisans had taken the three year course at the Jesuit school in Lusanga or at the school in Mwilambongo in Idiofa Zone. Apprenticeship was less time-consuming (6 - 18 months) and payments were similar to those made by tailors' apprentices. Access to raw materials and sewing machines were bottlenecks to production for shoemakers as well, and supplies were generally bought from Bata (an international chain of shoe factories) in Kinshasa. Demand fluctuates greatly by season, and peaks before school starts and during the rainy season, though artisans can find repair work throughout the year. Most of the year's work is repairs (up to 90%) rather than new shoe fabrication.

Hairdressers

Hairdressers are busiest at night and on weekends. They need to have a large regular clientele since profits per client are very low.

Modern Artisan Activities

Carpenters

Carpentry is the major employer in the modern artisanal sector. The proprietors of the five large workshops were all trained in two year school certificate programs (at Pindi,

Lusanga, or EPTOK) and received a free starting kit of tools at graduation. Others who learned from individuals reported needing long apprenticeships, and they do not seem to have been as successful in growing into large scale production shops. A major production constraint has been the shortage of upholstery materials. One of the large carpentry workshops, Meubeki, has developed a national level reputation thanks to the owner's exposure of his products at a national trade fair in 1974. He receives orders from Kinshasa, Mbuji-Mayi, Kananga, Bandundu, and Tshikapa, which have encouraged his growth to a sizeable scale of employment for an artisan (eight employees plus three apprentices). A carpenter spends a considerable amount of time on each piece, and receives an appropriately high price for each, therefore his size of clientele is rather small (19 clients in seven months for Meubeki) compared to hairdressers (who may serve 250 clients in a month). Therefore, provision of national exposure for quality wood-working production can generate a greatly expanded geographic market for a workshop, and increase its job creation manyfold, even if a relatively small number of clients are recruited.

Electricians

Electrical repair was primarily learned in 8 - 18 month apprenticeship situations, though training is obtainable at the meteorological school in Binza, Kinshasa. Their poor level of training was felt by many artisans to be their major handicap in this activity, but lack of spare parts and other materials was also a problem. Most had to make their own parts or go to Kinshasa to look for them. The irregularity of their clientele had forced some workers to act on their legal right to sell appliances left in their custody if not claimed and paid for after a reasonable period of time.

Solderers

Metal workers had studied at the technical school in Wangata for the most part, though two had learned through apprenticeships. Their craft required the most modern electrical tools used by Kikwit artisans, and they relied upon local importers (especially the Mungwa firm) for their purchase of raw materials.

Vehicle Repair

Though a course in vehicle repair is taught at IPTK in Kikwit, as discussed earlier, local job placement possibilities are already very limited and can not absorb current graduates.

Only about 22 jobs were occupied by vehicle mechanics on Avenue Mobutu (including three apprentices). Entry into this sector as a self-employed person requires investment in complex tools. About nine other artisans were known as "quados", and offered a variety of related but less skilled services, e.g. tire mending, battery recharging, and body work, with most of their income generated by work on tires.

Other Repairs

Specialized repair services were performed by some artisans on clocks, watches, and sound equipment. Most of these workers had commercial degrees from the Salvation Army Trade School in Kinshasa, and the blacksmith had also received his apprenticeship in Kinshasa. Receipts in the mechanical and electrical repair sector vary quite a bit depending upon the worker's wage (a factor of his training and past performance). Watch repair requires a long individual apprenticeship, because the techniques are exacting and availability of teaching material is dependent upon client demand.

Conclusions

Though mechanics have relatively higher profits for their labor, and hairdressers somewhat lower returns, there was not a great difference in reported earnings between traditional and modern sector artisans. (See Table 30). It is dangerous to rely too heavily on these reports of profits, however, since informal sector workers are usually afraid that tax increases may be linked to surveys, even when conducted by ISP students.

The overall conclusions that can be drawn based on these ISP surveys, indicate that Kikwit is an important center of apprenticeship training for both traditional and modern artisans. There is a considerable amount of artisan mobility between training sites and places of self-employment. A large number of the artisans were trained in Kinshasa or secondary cities outside Kikwit (though usually still in Bandundu Region), before choosing to establish themselves in business in Kikwit.

Though incomes are not reportedly much higher in the modern sector than in the traditional trades, there seems (with the exception of vehicle repair) to be more growth potential and elasticity of demand in the modern part of the informal sector. Aside from its employment generation potential, the modern informal sector is attractive for development strategy

TABLE 29

CAPITAL: PROFIT RATIOS FOR ARTISANS

	Expenses	Profit
Tailor	29.5%	70.5%
Shoemaker	74.0%	26.0%
Hairdresser	89.0%	12.0%
Carpenter	53.0%	47.0%

TABLE 30

COMPARISON OF AVERAGE MONTHLY ARTISANS' SALARIES 1982

	Trade	Monthly Salary
Traditional:		
	Shoemaker	120 Z
	Hairdresser	80 Z
Modern:		
	Carpenter/Solderer	100 Z
	Mechanic	150 Z

planning because it provides production-oriented services rather than the consumption-oriented ones (clothes, shoes, coiffure) which are the perview of the traditional trades.

Strategies-development designed to strengthen this modern artisanal sector would need to address: (1) expansion of the availability of high quality training in secondary cities; (2) expansion of credit for startup tools and materials, especially since modern informal sector tools are more expensive that traditional artisans' tools, and modern types of production have higher ratios of inputs' costs to profits than traditional activities (see Table 29); (3) provision of wider geographic exposure for secondary city producers to nationwide markets (more relevant to wood and metalwork than to more locally marketed repair services); (4) increasing of access for secondary city workers to necessary inputs (raw materials and spare parts) on a regular basis; which could be assisted by (5) selected research and development followed by training activities that would help local artisans to produce a wider range of their own parts for repairs. The presence of IPTK, as an institution in Kikwit, offers an ideal base and source of technical assistance for a USAID pilot project along these lines. IPTK would also like to open masonry and other building trades sections, if resources were available, though the construction trades were not part of the ISP survey, so the extent of existing employment in this sector is unknown. No survey of agricultural transformation activities in the informal sector was available (small flour and grain mills for example), so the extent of investment and opportunity in these realms of self-employment is still an open question. Both construction trades and food processing could and should be included in modern informal sector development projects for a secondary city like Kikwit.

Two trends are particularly encouraging. Firstly, Kinshasa is serving as an incubator for secondary city artisans, who are often trained there in either formal or informal programs, before moving out to smaller cities where competition for clients is less severe. This provides a useful model for a primate-secondary city relationship which contributes to decentralized economic development. Secondly, as was found in the Djuma survey discussed earlier, rural-urban migrants who were able to learn an employable skill in an urban area were able to continue to practice this skill after returning to their village, with the exception of automobile "mechanics", (who were probably constrained by lack of tools, parts, and village-based vehicles). Motor vehicles, as stated earlier in the section on transport and commerce, tend to be based in urban areas which can support and service these investments.

Secondary cities should be encouraged to further develop this role of training rural youth for off-farm rural employment, and regularly supplying these rural artisans with parts and raw materials. Almost half of the reverse (urban to rural) migrant youth in Djuma villages expressed a desire to learn non-agricultural trades which they could use fulltime or seasonally for rural employment, but some of their occupational aspirations were not very realistic. As stated earlier, 22% hoped to become driver/mechanics (though no rural employment opportunities existed in this field), and others identified the more traditional areas of teaching, tailoring, or nursing as professions. During the RHUDO mission to Kikwit, CEPLANUT consultants had just arrived to begin a USAID funded study of nutritionally related income-generating activities in Bandundu region. Their report may indicate more specific directions for further economic feasibility studies for off-farm rural employment identifying skills which could be taught in secondary city training programs.

The next chapter will explore the role of private voluntary organizations based in Kikwit, and recommend more specific activities, including agricultural projects, which could transfer skills to rural migrants during their temporary residence in the city of Kikwit, especially skills which would accelerate rural development after migrants' return to their villages. To enable USAID to capitalize this opportunity for using rural-urban linkage for informal sector job creation, it is proposed that the PVO's serve as vehicles for providing agricultural and modern informal sector training and credit to rural migrants. The last chapter of this "Urban Functions" section will describe one existing PVO credit program in Kikwit which could be expanded to provide more start-up and operating capital for informal sector job creation.

TABLE 31

KIKWIT-BASED DEVELOPMENT PROJECTS AND PRIVATE VOLUNTARY ORGANIZATIONS

Development Projects

CEPLANUT (Centre de Planification Nutritionnelle)	Kikwit office of this national AID-funded nutrition training project just opened recently as the first regional branch of activities;
Office des Routes	AID will be financing a new regional center in Kikwit which will give training in road construction and maintenance;
Programme National Engrais	fertilizer trials and extension;
CODAIK (Compagnie de Développement Agro-Pastoral Intégré de Kwango-Kwilu)	40% GOZ funded (World Bank and German aid-financed) and 60% private investment. Aims to increase agricultural productivity, urban marketing of rural food, and rural living standards through a diverse transport, investment, and extension program;
Programme National Riz	a Mainland Chinese project to provide technical assistance for the extension of improved technologies for irrigated rice and some upland rice promotion in southern Bandundu; Kikwit-based assistance to JMPR rice projects for unemployed migrants;
JMPR (Jeunesse du Mouvement Populaire de la Révolution)	GOZ "youth movement" part of the political party's organization which actually involves a wide range of ages. Kikwit-based agricultural extension and production projects in three neighborhoods and seven urban training centers offering diplomas in carpentry, nursing, auto mechanics and typing. Program target urban unemployed and rural migrants;

- Development Projects and Private Voluntary Organizations' Headquarters

Kikwit is a center of concentration for the headquarters of development projects and private voluntary organizations (PVO's) which focus on Bandundu Region. Few of these projects or PVO's focus their activities on the city itself, or work with its rural migrant population (many of whom will be returning to the rural areas periodically or after a temporary period of Kikwit residence). Therefore, an important opportunity to use these urban headquarters to cost-effectively stimulate rural social and economic development is being lost. Various AID trip reports have inventoried the activities of some of these organizations in the past. Bottlenecks to rural agricultural production were identified in these reports as being: labor, vehicles/roads, seeds and tools, and the city of Kikwit has an essential role to play in alleviating all of these bottlenecks. It is usually feared that cities will drain young people away from rural labor, leaving an aging and predominantly female rural agricultural workforce. Conversely, however, as was found in the Djuma survey discussed earlier in the national part of this Profile, short term (one to five years) migration into urban areas is a typical pattern for Bandundu youth, many of whom return to the rural areas after failing to find regular salaried urban employment or support for their education. Table 31 provides a brief description of each project's resources and activities, and comments in this section will focus upon particular illustrations of opportunities noted during the RHUDO consultant mission.

This concentration of resource institutions in Kikwit, supplemented by the presence of technological and mechanical assistance from IPTK, provides the opportunity for skill training and seed capital financing of employment-generating activities for rural migrants and the urban unemployed which could include: (1) strategies for upgrading the JMPR's existing agricultural and off-farm skills training programs; (2) involving IPTK in research and development of replacement parts and machinery for the use of the modern informal artisanal sector; (3) providing training and CBZO credit for small scale urban food-processing industries; (4) instituting construction sector training at IPTK and apprenticeship employment in the Habitat for Humanity housing project, aided by CBZO credit for future homeowners; (5) combining CEPLANUT, PVO, and JMPR resources for urban-based projects which integrate improved agricultural production with health and nutrition training at urban health centers, the General Hospital, and agricultural training sites; (6) introducing a

Peace Corps	rural fish culture;
Note:	FAO presence was discontinued in summer 1983, though formerly a resident technical assistant had been assigned to CODAIK.

Private Voluntary Organizations

BDD (Bureau Diocésan du Développement)	diverse program of rural cattle breeding, agricultural and livestock extension; a Kikwit warehouse supplies rural health dispensaries and even the Kikwit General Hospital; all Kikwit pension payments are distributed on behalf of the GOZ social security ministry. Kikwit factory for cattle feed mineral blocks. Has corn and manioc mills, and currently opening Dutch-funded food processing plant in Kikwit (corn and peanut oil press, coffee roaster, rice decorticator);
Oxfam	rural agriculture development including assistance to Institut Technique Agricole at Isingu. Assistance in providing equipment for Reference Health Centers in Kikwit Health Zone including urban-based centers; unsuccessful attempts to provide a secretariat for regional coordination of Bandundu PVO activities;
CBZO Credit Cooperatives (Communauté Baptiste du Zaïre Ouest)	three Kikwit-based and eight rural savings and loan cooperatives; only one in Kikwit legally recognized;
Habitat for Humanity	a U.S. PVO which has had low income housing construction projects in Kinshasa, Mbandaka, and Ntondo, for several years, and is just starting programs in Kikwit and Gemena;

PAP (Programme Agricole Protestant)	an animal feed mill originally funded by the Mennonites suffering from lack of working capital for inputs, electrical power problems, and mechanical breakdowns.

wider dissemination of PRONAM (Projet National Manioc, assisted by AID and based in Kyaka south of Kikwit) and other agricultural technological improvements on Kikwit sites that will benefit from the city's influence in exporting innovation to rural areas. These strategies will be summarized in the final chapter of this Profile. The discussion which follows is based upon field observations on current projects and organizations in Kikwit, and is designed to provide guidance for the more detailed development of possible projects along these lines.

Collaborating with JMPR can provide a medium for working with the target population-unemployed migrant and urban youth. As described at the end of the chapter of this case study on "Education", the JMPR has three on-going agricultural training projects, in irrigated rice at two locations and upland crops (manioc, pineapples) at all three, which are serving this target group. These sites are located in the mostly newly developped, rapidly expanding neighborhoods on the urban fringe. The Mainland Chinese, through their Projet National Riz, have seized this opportunity and are involved at two of these sites, though only with rice. From field inspection, a high technical standard has been achieved, though a relatively small part of the Kikwit target group is involved in the rice project (only about 20 young people on the Kikwit III site). As stated earlier, the JMPR manioc production seems to be affected by mosaic disease. Introducing the AID-assisted PRONAM varieties on these highly visible sites, along with expansion of the JMPR program in Kikwit as a whole, could provide a mechanism for capitalizing on the urban setting to diffuse agricultural innovation through migrants during their periodic or eventual return to their rural areas.

JMPR's rice production would be much more profitable to its project participants (almost double) if the rice were sold on the private market after being decorticated. Rice production is currently marketed unprocessed to the Chinese. The BDD rice decortication factory will soon be open, providing an opportunity for JMPR/PVO collaboration to increase returns to project participants.

IPTK has expressed willingness to expand its services for development projects, which were evidenced by its collaboration (discussed earlier) with the former FAO technical assistant to replicate and distribute prototype corn de-cobbers manufactured from shop scrap. A medium should be found for bringing together IPTK technical resources (skills, orientation towards training, machine shop tools) with the JMPR mechanical and carpentry training centers. This would

provide an opportunity to re-orient both the JMPR and the IPTK programs away from auto mechanics, for which local job displacement is difficult, and towards marketable skills training for off-farm employment (e.g. repair and maintenance of grain mills and other small agricultural processing equipment). As mentioned earlier, it would also be possible to develop and test prototypes at IPTK of small water wheels and hydro-electrical installations which could be used in urban PVO training and credit programs, and disseminated in rural areas. The BDD manioc and corn mills, and coffee, rice, and oil processing installations in Kikwit could also be used as training and apprenticeship sites for IPTK students and JMPR project beneficiaries. Though BDD has assembled an impressive physical plant in Kikwit with Dutch assistance, including warehouses and agro-industrial machinery, it is not using this infrastructure for training activities for migrants and the urban unemployed.

In general, aside from the small group of JMPR agricultural workers who are being assisted by the Chinese in rice production, there seem to be no urban-oriented agricultural training projects sponsored by development organizations or PVO's in Kikwit. There is a State secondary school, the Institut Technique d'Agriculture de Kikwit (ITAK), which was not visited during the RHUDO mission because of time limitations. Physical evidence of official disinterest in the school, however, was observed in form of the abondonment of its half-finished new facility at the entrance to the town. GOZ construction project funding was halted several years ago. In view of the local expertise in improved agricultural methods of Oxfam, the BDD, CODAIK, and PNE, it would be possible (1) to organize short-term agricultural training programs, and highly visible trials of new varieties within the city, (2) to upgrade training at ITAK if determined to be necessary from a review of its existing program, and (3) to work with CBZO credit cooperative members to encourage investments in improved uses of agricultural inputs, processing, preservation, storage, and transport to markets.

There has been an over-reliance in multi-donor project design on CODAIK as the institutional vehicle for donor and lender resources and coordination with the PVO sector. As stated in the chapter on transport functions in Kikwit, CODAIK is mainly serving a small number of high level entrepreneurs, in whose hands the road transport sector and other major economic resources are already concentrated. In mixing public and private ownership, through a small number of private shareholders all of whom are interested parties, this was perhaps institutionally unavoidable. CODAIK, for example, has

provided financing for five trucks during its first year of operation through loans to its buyers, and will be importing and financing the sale of 25 more in 1984. These trucks are being imported for CODAIK's own shareholders, who will receive 24% interest by keeping their funds in a Bank of Zaïre account, while only paying 20% for CODAIK's truck purchase loans.

CODAIK has not completed any surveys of existing agricultural processing activities in Kikwit. It will be necessary to complete a survey of small mills, oil presses, and rice decorticators already being operated in Kikwit as the basis for any further project design work on enhancing the urban transformation of rural production. CODAIK is however, financing a small mill and diesel generator for a cooperative in Kikwit III as an experiment. No interest will be charged for this 12 month loan in the amount of 250,000Z (including 15,000Z for a stock of fuel). The loan repayments are to be used as a revolving fund to which other cooperatives could apply for capital investment loans. This experiment seems to have been simply a response to CODAIK's solicitation by this particular group, and was not preceded by a survey which would identify other cooperatives who could be considered for financial assistance.

Urban-based construction and dissemination of prototype agricultural storage systems should be considered for project assistance. From October to January, there is an annual decrease in food availability, generating sales price increases which would be beneficial to producers and small scale market intermediaries if secure post-harvest storage could be made available.

Though, in general, CODAIK did not seem particularly receptive to urban training, extension, and investment projects targeted towards migrants and urban-based agriculturalists, they do have one other small project initiative in Kikwit which is a step in the right direction. A Catholic brother from the Sacré-Coeur mission had already organized a 1/2 hectare market gardening project for nine young people at the edge of the mission's property next to the Yonsi River. When approached by the group, CODAIK agreed to provide two part time extension agents and group credit for tools, seeds, and fertilizer to be repaid in installments every three months. The project hopes to expand to ten hectares through this assistance. Though too limited in its current outreach, this experiment had already been noted by the consultant during field surveys earlier in the mission, and was impressive for the technical skill and careful maintenance of the plantings.

CODAIK aims mainly to collaborate with existing groups, and does not see its role as organizing new ones. Though expected by donors to be the vehicle for agricultural development coordination in the Kwango-Kwilu, CODAIK is not working with PNR, JMPR, or the local PVO's. Its commitment to producers is limited, since it sees the interests of large scale transporters and marketing intermediaries as threatened by producer transport and marketing cooperatives. CODAIK's abortive collaboration with PRONAM, for which it proposed to serve as the vehicle for seed multiplication and distribution of new varieties through coordination with PVO's, did not yield results, reportedly because PRONAM could not furnish enough plant material.

It will be important to consider the role of urban-based PVO's and development projects in establishing reforestation/erosion control demonstrations on ravines in Kikwit. Secondary cities in Mali have been exporting new tree varieties to rural areas for a long time, in the absence of development project assistance, including the diffusion of mango cuttings for example. Urban green belts of the fast-growing, drought-resistent "neem" tree on the edge of the secondary city of Kayes, Mali, have halted urban erosion and are replenishing fuel wood reserves, as well as generating rural interest in reforestation. Rural visitors to the urban area are obtaining young "neem" trees free from the city's nursery for replanting in their villages. Though climatically different, Kikwit is also experiencing drastic deforestation from agricultural and fuel collection activities on its fringe, and its rapid rate of growth is accelerating erosion as squatter housing multiplies on its boundary ravines. It would be appropriate for AID to identify species of multi-purpose fast-growing and hardy trees which could arrest erosion while simultaneously regenerating fuel reserves. It would be ideal if species could be proposed which would also provide small ruminant feed and/or green manure. The International Livestock Centre for Africa (ILCA)'s branch in Ibaden is currently monitoring alley cropping trials which provide alternate rows of leucina trees and food crops on farmers' fields. The leucina is used for soil erosion resistance as well as sheep and goat dry season feed supplements in these trials. It would be advisable for AID to consult with ILCA and other tree research projects to identify appropriate species which could be used in a demonstration reforestation project with PVO collaboration in Kikwit.

Oxfam is probably the organization most able to coordinate Kikwit PVO and development project activities, along the lines suggested in this profile: (1) strengthening the PVO credit

sector; (2) creating widerspread stronger urban forestry and agricultural demonstration projects; (3) integrating health education into health services; (4) drawing together local educational personnel, PVO's and the GOZ youth movement for modern informal sector skills training and appropriate technology for agricultural processing industries. This is suggested because of past Oxfam initiative in organizing and financing a March 1983 three-day conference which brought together most of the major PVO's in Bandundu Region to discuss common interests, technical and financial needs, and a strategy for group self-help. The conference chose an advisory committee from among its participants, to coordinate and strategize follow-up information exchange and problem-solving activities, and Oxfam agreed to serve as the secretariat for future information dissemination. The next advisory committee meeting was scheduled for June 1983, but only one of the committee members bothered to attend. Oxfam was extremely disappointed by this lack of response, and by the failure of participants to communicate with the secretariat post-conference on their needs, and proposed activities, or other issues. In spite of this lack of response, Oxfam persevered with efforts to bring together Bandundu's PVO's by co-financing and organizing a two-day meeting with PRONAM for PVO's from Kikwit and other parts of the region, to expose them to manioc technology and resource packages. Participation was good and interest was high. It seems that the PVO sector requires stimulation from an impartial third party organization, like Oxfam, to gradually overcome institutional defensiveness and isolationism through selected stimulation exercises that introduce new ideas and strategies. As a final example, Oxfam and CEPLANUT co-financed a nutrition course which brought together agricultural extension agents and diocesan health personnel. These are encouraging initiatives. The combining of CEPLANUT nutrition training with urban-based courses for agricultural extension agents, other educational, and health personnel could be facilitated by the Kikwit-focussed PVO consortium which Oxfam could coordinate. Though Oxfam was somewhat discouraged by the lack of Bandundu-wide PVO interest in sharing resources and dialoguing on development problems, it would be advisable for AID to consider working with Oxfam on a more modest scale to develop a Kikwit-wide program which would integrate PVO's and development projects in a focus on rural migrants and the urban unemployed.

Since many short-term rural to urban visits are generated by the search for health care services, and the Kikwit General Hospital attracts rural people from a 500 km catchment area, it is recommended that CEPLANUT work with Zonal Health

authorities and the Kikwit PVO consortium to develop training sessions for the members of extended families who accompany patients to the hospital and care for them during their treatment program, often spending large amounts of time idle on the Hospital compound. Though Oxfam and the Zonal Health Officer are working to strengthen Kikwit Reference Health Centers and the lower order dispensaries which they supervise, the Hospital remains the primary attraction for health-motivated visits from rural areas, and should therefore be the first training target.

Other Kikwit PVO services will soon be provided in the low income housing construction sector. Habitat for Humanity, a U.S. PVO with inter-denominational religious financial support, has had low income shelter sector projects in Zaïre on sites in Kinshasa (42 units so far in Mount Ngafula since 1979), Mbandaka (over 200 units), Ntondo (over 100 units), and will be starting projects concurrently in Kikwit and Gemena this year (1984). The Kikwit project supervisors, a missionary couple, had just arrived in Kinshasa during the RHUDO mission. In order to make recommendations about Habitat for Humanity's existing program, as guidance for the Kikwit initiative, the consultant visited the Kinshasa work site and held discussions with John Yeatman, who has been its director for the past two years.

The Kinshasa effort has had several project design problems, principally:

(1) The fixing of 20 year loan repayments on the cost base of actual construction, in an economic climate of rapid inflation and devaluation, is not creating an adequate revolving loan fund for the next phase of construction financing through loan repayments. No self-sustaining financial basis has been created, and cost recovery is not taking place. Habitat for Humanity is considering tying loan repayments to price increases in the cost of construction materials, or requiring repayments in kind (construction materials), but has not yet worked out a procedure for this, or obtained participant concurrence. It is hoped to experiment with some mechanism along these lines in the Kikwit project. Payment in kind failed in work in Ntondo.

(2) Inflation in salaries of beneficiaries makes fixed loan payments non-viable. Payments fixed at 50Z/month in '79 at 25% of salary were only 5% of salary in '83. Interestingly, as payments become a

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lower share of monthly income, payments are more frequently delayed or totally forgotten by beneficiaries, since they are seen as insignificant.

(3) The self-sustaining capacity of the project is also threatened by Habitat for Humanity's use of full time salaried construction teams (22 workers in Kinshasa) who are dependent upon the U.S. director's supervision. Project beneficiaries (the future homeowners) are expected to provide voluntary labor for some tasks, but since they are all salaried workers themselves, they tend to hire labor for their work contribution. It does not seem that local self-reliant project management and construction supervision is being phased in adequately.

(4) Because of the selection criteria used to choose beneficiary families, the target group served is not particularly "low income" relative to the range of household incomes in Kinshasa. Beneficiaries are required to have salaried employment, and averaged 600Z-800Z in monthly base salary in October 1983.

(5) Inadequate coordination and collaboration with Kinshasa municipal authorities and public utilities has been incorporated in project design. The Government of Zaïre donates the land, but was not required to commit any other services (water, feeder roads, electricity). Since Habitat for Humanity cares only about housing, none of these water or electricity services are being funded by the project either. Internal access "roads" are merely tracks passible by four wheel drive vehicle, and because of steep slopes and swales, rainy season floods and erosion on the Kinshasa site periodically destroy even this construction vehicle access. Reportedly Kikwit local government has promised to build roads and water systems for the new project site, which is isolated south of the city, but it will be necessary to ensure this contribution through formalized agreements.

(6) Project staff have inadequate technical skills and design standards for building on the relatively steep erosion-prone slopes in the Kinshasa site, a problem which the Kikwit project will also need to face.

In conclusion, without a project redesigned for greater financial self-sufficiency and replicability, which is

internally training local management for project continuity and extension, the Habitat for Humanity effort will remain a token gesture providing virtually free housing for a privileged few (who are not even among the lowest income urban population). Of the 2,000 applicants who presented themselves for interviews in 1978, to which 3,000 inquiries have been added since then, Habitat for Humanity Kinshasa has only provided housing for 42, and is now working on construction for the next nine families. Since the housing standards used are too high, the number of units produced has been low and cost per unit has been high. The project receives about $200,000/year for all sites in Zaïre, and paces construction activities to this variable stream of donated funds. Local beneficiaries are chosen by a project committee comprised of businessmen and church leaders (all male in Kinshasa though some female heads of households were chosen as beneficiaries). The project uses this means to achieve community selection of occupants, which it sees as an important element. Most of the Kinshasa beneficiaries and selection committee members are Baptist, since the project began under the auspices of this church. If any AID support for the Kikwit project were to be considered, after adequate project redesign which would meet the concerns above, it would be necessary to also ensure that no one religious group dominated in the composition of the selection panel or beneficiary list.

As a whole, the Habitat for Humanity low income housing project has so many problems and limitations as it is currently structured, that support can not be recommended in its present form. The funds available would be better used, and serve a wider group of beneficiaries' basic shelter sector needs, if they were put solely into urban water systems (e.g. group wells) rather than into any housing construction. The priorities should be water service, sanitation, run-off erosion control, and access roads; site inspections indicate that adequate self-built housing can proceed incrementally within this access and service structure especially if official commitments to provide land titles to investors can be obtained. When Kinshasa tenants were paying an average of 150Z/month for two rooms in an eight family compound (fall '83), Habitat for Humanity was giving interest free-loans to be repaid by 100Z/month for purchase of their housing over a 20 year period by project beneficiaries. Even with salaries of only 600-800Z/month, project beneficiaries were paying much less for housing purchase than they had formerly been paying for rental. Most urban families have multiple sources of income beyond the official base salary of the household head, and are affording more for housing than this project

requires. The whole financial basis of the project is oriented towards "gift" and not development.

Conclusion

Private voluntary organizations are providing a major share of Kikwit's urban social services. Over 50% of health services, and 60% of educational services are financed and administered by PVO's, and one of them, the Bureau Diocesan du Développement is paid by the government to distribute all of the city's pensions to retirees, and has financed some urban neighborhood wells. Important opportunities are being missed, however, which would harnass the technical and capital resources of Kikwit's PVO's and other urban-based development projects towards a multi-sectoral program of training and economic development activities, working with temporary rural migrants and visitors in the city to cost-effectively stimulate rural development. This chapter has outlined some of the opportunities which could be considered for project development.

- Credit

Earlier in this Profile, findings from discussions with major traders and the Kikwit household survey, on sources and uses of credit were presented. While it was found that the Commercial Bank of Zaïre (the only bank in Kikwit) is serving as the major source of credit for the region's high level entrepreneurs, it was also noted that the CBZO (Communauté Baptiste du Zaïre Ouest) Credit Cooperatives are the major source of formal sector credit accessible and attractive to a broader socio-economic cross-section of Kikwit residents. A minimum deposit of 50,000Z is required to open an account at the Commercial Bank of Zaïre, and service fees of about 360Z/trimester are charged, creating entry barriers for all but the most economically advantaged. The State savings cooperatives, as found in the household survey, are not attractive because service is slow and substantial account maintenance and transactions fees are charged. For example, a 500Z account may cost 60Z in fees. Therefore the CBZO cooperatives, which are open to all, have become the most important formal institutional source of credit for the average Kikwit resident. The CBZO cooperatives are growing rapidly, are encouraging domestic capital formation, and as a major PVO project which can provide rural-urban linkage for a key economic development input, credit, they deserve USAID consideration for project support.

The CBZO's central branch began in Kinshasa 12 years ago through the initiative of Citoyen Luyeye Massamba ne Nsaku. Savings of its 74,000 members exceeded 74,000,000Z by November 1983. Its branches include 11 in Kinshasa, 10 in Bas-Zaïre, 3 in Kikwit, and 8 in the interior of Bandundu. Matadi will be opening a second CBZO cooperative soon as well.

Aside from its rapid growth and commitment to decentralization, focussed upon the establishment of branches in secondary cities, CBZO is attractive because of the mix of equity concerns and economic development in its goals:

(1) provide security and accessibility for local savings;

(2) redistribute savings as easy-to-reimburse credit for members (affordable installment payments and interest rates);

(3) spread knowledge of elementary economics and savings;

(4) teach members to respect their economic obligations;

(5) stimulate individual and collective economic initiative;

(6) teach members to rely first and foremost on their own resources.

The Kikwit-based CBZO effort is still in its early stages, providing a critical opportunity for timely support, though the existing track record is already encouraging. Only one of the three Kikwit CBZO cooperatives is already formally recognized by the GOZ; the others, as well as the eight branches in rural Bandundu region, are still legally "pre-cooperatives". Each branch functions independently, though the diagram in Figure 7 shows the national hierarchy which is currently being put in place as a structure capable of handling the CBZO's rapid proliferation of branches. The national and individual branch levels of this structure already exist, but the regional directorate and general assembly will be new structures, and are currently being designed.

Though the first CBZO cooperative was established only for Baptists, by April 1979 when the movement had expanded into Kikwit, all branches had been opened to any applicant. The cost of opening an account is minimal since it requires only an 11Z investment ($0.35 US) distributed as follows:

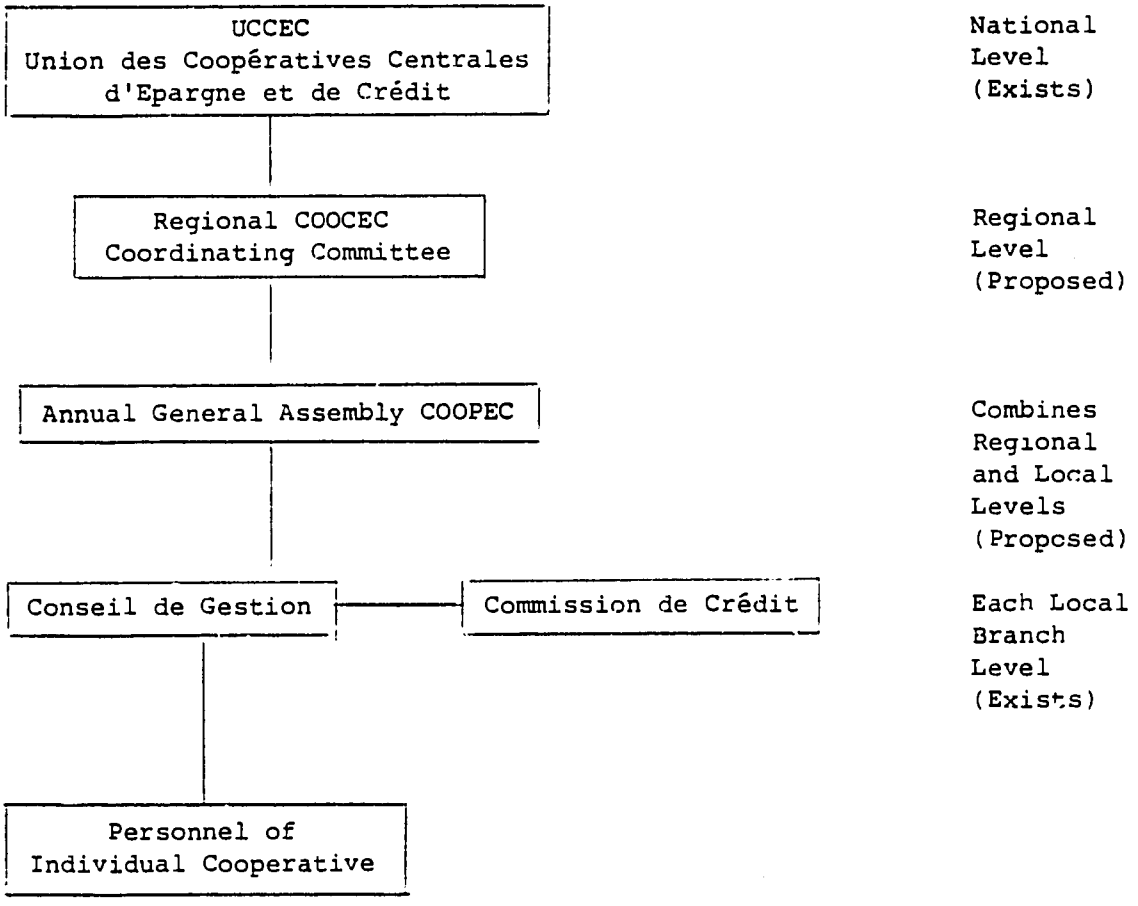
Entry Fee	5Z
Passbook Fee	5Z
Social Contribution (which is also the first deposit)	1Z
TOTAL	11Z

There are no service charges for deposits or withdrawals. All accounts are held by individuals, though spouses may be included as joint signatories upon request. Most members are male (about two-thirds). Accessibility to funds is provided, since the offices are open six days per week. Interest payments to members' accounts are calculated using the smallest balance in the account during the trimester, upon which 1% is paid as interest for this period.

The formally recognized "mother branch" in Kikwit had 5,752 members at the time of the RHUDO mission, and new members were joining every day. Members' savings in that branch totalled almost 5,000,000Z ($166,666 US) in October 1983.

FIGURE 7

PROPOSED NATIONAL CBZC SFRUCTURE



The amount of credit available to a member for a first loan after the initial six month waiting period is 50% more than his or her total savings thus far. As shown in the last diagram, each cooperative has a advisory Credit Commission which allocates available loan funds on a regular basis after reviewing the proposed use of credit in each application.

Most requests involved the search for commercial investment capital. As shown in Table 32, 80 of the 110 economic investment loans given in 1982 were used for this purpose. Other commercial operating expenses (rent, etc.) were allocated an additional 20 loans, with only ten loans given for agricultural or livestock investments. This is not surprising for an urban-based credit cooperative, given the pre-eminence of commerce in Kikwit economic activities and the ease of entry into informal sector trading. A strategy of USAID support to establishing greater outreach of CBZO Kikwit towards rural populations served by the city and recent urban migrants who are engaged in agriculture in the newly developing urban fringe neighborhoods, could expand the market for agricultural and livestock credit. A lesser amount of credit was allocated towards the shelter sector (land purchase and construction) and the smallest amount towards social consumption. Education received the lion's share of this last credit category, but the CBZO also sees its function as helping members to meet other family obligations (gifts for important ceremonies, marriage payments, and entertainment expenses for weddings and funerals, etc.). The track record of loans given, however, shows the weight given by the Credit Commission to economic investments which are more likely to produce individual financial self-sufficiency and national economic development in the long run.

CBZO has experienced some defaults in loans, including 80,000Z since 1979 at this time. Though efforts to recover these funds have not been abandoned, CBZO Kikwit has created a Risk Fund to cover such defaults, which will be financed by a tax on the loans. A employer's guarantee is required to secure a loan for an employee, and the employee is required to sign a statement authorizing salary deductions for his loan repayments. A CBZO cooperative member can stand guarantee for another member's loan, but this puts the guarantor's savings in suspense. Some sex discrimination against married women is practiced, in that her husband must countersign a married woman's loan, even if she has her own individual savings account. This is probably necessary under existing Zaïrian law. As explained earlier under the chapter on socio-economic conditions, married women are not legally responsible for debts that they incur without written authorization for this

TABLE 32

1982 CBZO KIKWIT LOANS BY SECTOR

I.	Economic Sector Investment:	No. of Loans	Total Amount of Loans
	Commerce	80 loans	Z157,226.50
	Agriculture and Livestock	10 loans	Z 38,000.00
	Commercial Operating Expenses	20 loans	Z 12,000.00
	TOTAL	110 loans	Z207,226.50

II.	Housing:	No. of Loans	Total Amount of Loans
	Housing and Land Purchases	12 loans	Z 16,600.00
	Construction	5 loans	Z 13,888.00
	Furniture and Domestic Equipment Purchases	5 loans	Z 5,512.00
	TOTAL	22 loans	Z 36,000.00

III.	Social Loans	No. of Loans	Total Amount of Loans
	School Fees	10 loans	Z 9,000.00
	Marriages and Funerals	2 loans	Z 800.00
	Medical Expenses	6 loans	Z 1,200.00
	Rent	1 loan	Z 500.00
	Consumption and Clothes	14 loans	Z 3,500.00
	TOTAL	33 loans	Z 15,000.00

	TOTAL		Z258,226.50

endebtedness by their husbands. Unmarried women do not require male countersignatures for loans.

The CBZO savings and credit cooperatives are financially self-sufficient, and provide a mechanism which gives small depositors access to the interest and security from theft which they would have had if they had been able to open a Commercial Bank of Zaïre account. One Commercial Bank of Zaïre account in Kikwit has been opened to serve all three Kikwit cooperatives. Each cooperative keeps 50% of its total deposits in this account, as a reserve which earns 24% interest annually (i.e. 12% earned for total CBZO funds). This interest provides the 4% interest which is paid to CBZO's own depositors annually, and the remainder is used to cover administrative costs (overhead, staff salaries). The Kikwit office was providing fulltime employment for 12 persons, but cooperatives in rural parts of Bandundu each had only one or two staff members. The remaining 50% of CBZO's deposits are theoretically available to members as credit. A review of financial statements shows a much more conservative posture in the amount of outstanding loan funds.

In conclusion, CBZO has the capacity for providing a significant rural-urban linkage in encouraging domestic savings, and leveraging from them credit for economic investment. It is serving as an efficient financial intermediary which is introducing the masses, on a pilot decentralized scale, to the formal banking sector especially in Bas-Zaïre and Bandundu secondary cities. CBZO's rapid expansion in size of clientele requires upgraded staff training in accounting, bookkeeping, and a balanced (but less conservative) approach to credit extension. Even a brief consultant review of CBZO financial statements revealed important computational discrepancies that will become a serious problem, if management skills and reporting methods are not soon upgraded to handle the demand for services.

It is recommended that USAID provide such training and management assistance as part of its PVO program in Kikwit, and that a more detailed strategy for assisting CBZO Kikwit to organize, backstop, and train a larger number of rural branch cooperatives be developed. This should be linked with other educational and PVO sector recommendations for establishing Kikwit-based skills training (in improved agricultural production, mills and other small scale processing industries, expansion of the private transport sector, and the shelter sector through the new Habitat for Humanity low income housing if this project is redesigned, and construction skills training at IPTK if implementable).

F. PROJECT PROPOSALS

Guidance on participant organizations and resource people for suggested Kikwit strategies has been presented throughout this case study, and the major themes are summarized below, as a basis for the establishment of USAID and RHUDO priorities for further project development consideration. The first two strategies highlight large scale public infrastructures which are critical to encouraging more diversified economic development in Kikwit. Recommendations in the next two areas, training and credit, are designed to foster a broader base of private sector entrepreneurship in agricultural processing and the modern informal artisan sector. Most of the existing transformation industry is directly owned and managed by either a small elite of high level entrepreneurs or directly by PVO's such as the BDD. PVO's should not try to substitute for the private sector, but should facilitate its expansion through providing technical training and services, exposure to investment opportunities, and accessible credit. The final set of recommendations are geared towards increasing local capacity for decentralized economic planning, revenue generation, and service provision, in the face of existing inadequacies in secondary city institutional development and staff skills.

I. Collaboration with other major lenders and donors to provide the public services needed for decentralized economic development:

   A. Liaison with the water system feasibility study proposed for financing through an African Development Bank loan, followed by financing elements of the study or its implementation if indicated.

   B. Liaison with German bilateral aid in the study of an economically feasible hydroelectric production site, followed by financing for additional study or implementation components if indicated.

II. Consideration of support to ONATRA and RVF for the upgrading of fluvial transport infrastructure, management, and operation on a Kwilu-Kasai systemwide basis, to increase the speed, efficiency, and security of this transport-to-market alternative for rural producers.

III. Development of a program of support for the financially-strapped PVO educational sector, and its re-orientation towards practical marketable training rather than the academic sciences.

A. Support to IPTK for the opening of new sections of its technical school curriculum which are targeted towards local job market realities and development needs: construction trades; self-employment in the modern informal sector through metalwork, carpentry, and electrical repair; agro-industry and services to small agricultural processing industries. There is no formal artisanal training available in Kikwit at this time. Artisans are trained through apprenticeship, which is inadequate in some technical fields.

B. Development of IPTK as an appropriate technology resource institution with workshops for the production and testing of small scale energy and food processing prototype machinery, including water wheels and hydroelectric installations useable in rural areas.

C. Technical assistance for the re-orienting of basic science curricula to provide marketable skills for dropouts from INFRA and the Sacré-Coeur mission schools.

IV. Formation of a Kikwit-focussed working group of local PVO and development project representatives, proposed for coordination by Oxfam, to design and implement urban-based agricultural and off-farm employment training for rural migrants and the urban unemployed.

A. Collaboration with the JMPR as a vehicle for reaching this target group.

B. Support for a survey of existing mills and other private sector small scale agricultural processing in Kikwit.

C. Support to the CBZO credit cooperatives through:

1) training in bookkeeping, accounting, and management;
2) financing of the transport and other costs of expanding the urban-rural linkages in CBZO service delivery;
3) matching funds for CBZO depositor-generated loan capital to provide a higher level of seed capital for targeted investment sectors (e.g. agricultural processing equipment, technical school education, the shelter sector).

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D. Provision of technical assistance to artisans through organizing cooperative purchase of inputs; research and prototype development for self-sufficiency in equipment parts and repairs; organizing broader market exposure.

E. Utilization of Kikwit as a central place able to export agricultural and forestry innovation to rural areas.

1) Organization of urban demonstration projects in improved agricultural methods, and urban reforestation. Forestry projects should be multi-purpose concurrently controling erosion, regenerating fuel reserves, and choosing species which are useful as dry season animal feed or green manure;
2) Use of urban-based schools and PVO personnel and facilities to provide short courses for rural development workers;
3) Evaluation of the curriculum at ITAK, the only secondary agricultural school in Kikwit, and enhancing the effectiveness and outreach of its program;
4) Support for research on the recycling of obsolete industrial oil palm plantations and credit for their repurchase and reuse by local entrepreneurs.

V. <u>Support for government human resource development and institution-building at the regional and local levels as a pre-condition for the decentralization of economic development planning.</u>

A. Support for a program of collaborative studies and training to be developed through Kikwit-based workshops which would bring together technicians from the Division Régionale du Plan in Bandundu, Kinshasa technical assistants, and local Kikwit professionals from the Ministries (especially ANEZA; the Commercial Bank of Zaïre; the national labor union UNTZA; the Ministries of Agriculture and Rural Development, Social Affairs, and the National Economy) to plan regional economic development projects.

B. Assessment and technical assistance for the improvement of local revenue generation and allocation, including cost recovery for municipal services, water and power, and drainage investments.

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C. Local in-service training in statistics, archiving, and data collection, using establishment of a data base on Kikwit employment as the first priority.

D. Enhance Kikwit's role as a central place for rural-urban linkage through training in the programming of the new Office des Routes training center:

   1) provide urban-based short courses for supervisors of village road maintenance and construction teams;
   2) provide technical skills training for urban authorities in land survey, mapping, and drainage system construction.

E. Integration of rural-urban linkage in the CEPLANUT program through the development of training in nutrition for rural visitors at the General Hospital and for rural migrants and extension agents involved in urban agricultural projects, and through reinforcement of the training function in Kikwit Neighborhood Health Centers.

ANNEXES

I. Resource Persons Contacted in Kikwit

II. Household Survey Analysis

III. Household Survey Forms Used in Kikwit (French and Kikongo versions)

I. RESOURCE PERSONS CONTACTED IN KIKWIT

I. Business Sector

Citoyen KIEKO KANDA	Chef d'Agence SONAMO
Citoyen MUNGA SAUSAU	Secrétaire Urbain, ANEZA, Sous-Région Kwilu
Citoyen KWAKENDA MUDI KIKONJI	ANEZA President

II. Transport

Citoyen KATSHUNGA PAMBI	Chef d'Agence, ONATRA, Kikwit
Citoyen KAYANDA KABAMBA	Président de l'Association des Chauffeurs, Région du Bandundu

III. Government Statistics and Policy

Citoyen SAMBIA	Commissaire Urbain
Citoyen BOKONGE SETE	Commissaire Urbain Assistant
Citoyen MATADI	Secrétaire Administratif JMPR (Jeunesse du Mouvement Populaire de la Révolution)
Citoyen KABASELE TSHIKUNDULU	Dirigeant Urbain de JMPR, Chargé de la Jeunesse Ouvrière
Citoyen GIZE	Directeur Sous-Régional de l'Education Nationale
Citoyen NKWEBE	Responsable des Statistiques Sous-Régionales, Education Nationale
Citoyen KAL'HOM MBON-EDY	Arpenteur de CADASTRE, Attaché du Bureau 1ère classe.

IV. Private Voluntary Organizations

Abbé NGUYA EBENG	BDD Director (Bureau Diocésien de Développement)
Père JAN ROEX	Jesuit Father in charge of Aten Project
GUY and MARGARET LEDOUX	OXFAM
Citoyen LUKUMU MABAYA	President, CBZO Coopérative d'Epargne et de Crédit (Communauté Baptiste du Zaïre Ouest), Kikwit
CODAIK:	
M. LE DUC	Directeur Général
Citoyen MITELE	Directeur Général Adjoint
M. WANTZ	Directeur Planification
Citoyen NTIL	Directeur Planification Adjoint
M. DINTER	Directeur Vulgarisation
Citoyen SONDI	Directeur Vulgarisation Adjoint
Citoyen EBONDA	Directeur Administratif
Citoyen BUBU	Directeur Commercialisation Adjoint

V. Health Sector

Dr. LA RUELLE	Medical Officer, Head of Kikwit Health Zone
SYLVIE ETIAN and JIM SETZER	CEPLANUT (AID Nutrition Project, Bandundu Region)

Dr. MATAMBA	Head of Kikwit General Hospital
Dr. LEMBA	Head Doctor at Musango Hospital (120 km from Kikwit on Kinshasa Road).

Note: MARGARET LEDOUX, OXFAM, also provided health sector information

VI. Education Sector

Père WATTLEY	Préfet des Etudes, IPTK (Institut Professionnel Technique de Kikwit)
Frère MIWU HYNAN	Préfet des Etudes, INFRA (Institut de la Fraternité)
Frère KIBADI MOSHE	Directeur des Etudes, INFRA
Frère THEO	Directeur de l'Internat, Ecole des Sciences, Mission Sacré-Coeur)

Note: Frére LOSSEAU also provided statistics on IPTK students.

VII. Land Allocation and Traditional Politics

Citoyen KAYITA JEAN	Mbala Chef de Terre, KAZAMBA Zone, Kikwit

VIII. Household Surveys

Initial in depth pilot interviews with:

Citoyen NSA NSA MAHANI	who maintains both rural (Tanganda Village) and urban households (Bongisa quarter in Lukolela Zone, Kikwit)
Citoyen KAYANDA KABAMBA	cited above, a resident of the same neighborhood, was also interviewed about his rural and urban activities.

Based on these findings, a household survey was designed in the Kikongo language for administration to an economically and geographically stratified random sample of 76 households in Kikwit:

CEPLANUT (AID, KIKWIT) Survey Assistants and Neighborhood Surveyed

A. Older Neighborhoods

Citoyen MAYAMBA	Nzinda (Bruxelle)
Citoyen KABILANGA	Lukolela (Bongisa)
Citoyen ILUWA	Lukemie (Wenzie)

B. Recently Settled Neighborhoods

Citoyen LONGOMO	Kazamba
Citoyen NGITUKA	Nzinda (Kikwit III)
Citoyen MUTOMBO	Lukolela (Poto-Poto)

IX. Energy Sector (Hydroelectric Potential)

Frère LOSSEAU	Professor of Engineering, IPTK, Kikwit

II. HOUSEHOLD SURVEY ANALYSIS

The household survey included three sections (see copies of French and Kikongo versions of survey form in Annex III):

(1) Household composition, parcel characteristics, and data on the household head (age, educational level, length of time in Kikwit and on the parcel, years of schooling, sex, rural or urban origins, ethnicity, mode of acquiring land tenure). Findings from this section on the sources and uses of credit, household size, and number of households per parcel have been reported in the case study.

(2) The second survey section inventoried the economic activities of each household member (agriculture, education, salaried employment by skill level and sector, commercial and artisanal activities, including apprenticeship, and means of locomotion). Findings on the agricultural activities near Kikwit have been summarized in the case study.

(3) The third section inventoried visitors to the parcel, reasons for visit, duration, and future plans. The findings on visitors are summarized on the following pages.

Visitors to Urban Residents in Kikwit

Only nine of the 76 households surveyed had visitors at the time of the survey. Of the total of 16 visitors reported, six were educationally motivated, including four males and two females aged 18-25, all of whom were attending secondary school in Kikwit. They were evenly divided between cousins of the household head, or his wife, and nieces or nephews of the household head. One additional visit was also educationally related, since a 27 year old cousin of a female household head had come to look for credit for her studies.

The remaining four visits were evenly divided, in motivation, between the search for Kikwit-based health services, and purely social visits. The two health motivated visits included one 20 year old relative who had come to spend ten months in Kikwit for health care before returning to the village; the other was the 83 year old mother of a female head of household, who had come for a two week visit to receive urban health care services. This elderly woman reported that she was going back to the village temporarily, but planned to move definitively to Kikwit because of expected continuing health problems, and the need for appropriate access to facilities.

Of the two social visits, one was a two week visit by the male older brother (42 years old) of a male household head, who had come simply for a tourist experience, and who would be returning to his residence in another city. The second social visit was educationally related, since a mother and her five children were staying with a Kikwit household for an indefinite period of time, while the woman's husband was completing his studies at the University of Kinshasa. It was probably more economically feasible for the male student to support his wife and children residing with contacts in the less expensive city of Kikwit, within an eight hour visiting distance, than to try to maintain them in Kinshasa, where he was most likely lodging in the campus dormitory. The children ranged in age from $2\frac{1}{2}$ to 11 years, and their mother expected that they would all live in another city after her husband's completion of his studies, but their future plans were still indefinite.

Though based on a sample survey, the findings confirm pre-survey hypotheses. For rural young people in their late teens or early twenties, living with relatives in Kikwit is the best way to obtain a good secondary school education. Short-term urban visits are often motivated by health care or social reasons. For the elderly, retirement to the households of their children in Kikwit is attractive because of the high quality of health care available in the urban area. Households most likely to receive visitors are those of owner occupants. Of the nine households reporting visitors, only one was a tenant household, and this one received the shortest and purely social visit of only one week's duration. This seems to confirm, in a general way, the hypothesis suggested in the main report, that visitors are less likely to impose economically on relatives who are recent migrants, and still therefore urban tenants; longer term established urban families, however, are expected to be willing and able to accommodate long term dependents and visitors.

III. HOUSEHOLD SURVEY FORMS USED IN KIKWIT

(FRENCH AND KIKONGO VERSIONS)

ZONE :

QUARTIER :

RUE : (et numéro de parcelle)

CHEF DE PARCELLE, est-il:

a) propriétaire?
b) locataire?
c) Combien paye-t-il par mois pour sa parcelle?

_____

Combien de ménages y a-t-il sur la parcelle?_____. S'il y a plusieurs nages, remplissez une fiche enquête pour chacun.

Sur la parcelle est-ce qu'il y a :

(a) Eau	Oui	Non
(b) Electricité (Snel)	Oui	Non
(c) Générateur	Oui	Non
(d) Jardin	Oui	Non
(e) Arbres productifs	Oui	Non
(f) Elevage domestique	Oui	Non
(g) Quel élevage?_____	Oui	Non

Type de maison

a) En durable (briques et tôle)
b) En semi-durable (stick et tôle)
c) Taudis

Chef de ménage est-il: a) Homme?
b) Femme?

Quel est son niveau de formation?
(nombre d'années complétées) Encerclez.

Primaire	0	1	2	3	4	5	6
Secondaire	0	1	2	3	4	5	6
Supérieur	0	1	2	3	4	5	6

Quel est la composition du ménage? (Relation des autres avec le chef de nage en français). Continuez au verso s'il y a plus de quatre personnes. umérez tout le monde sauf les visiteurs de passage à la maison.

Personne No. 1 _____ âge _____
Personne No. 2 _____ âge _____
Personne No. 3 _____ âge _____
Personne No. 4 _____ âge _____

11. A quel endroit le chef de ménage a-t-il passé sa jeunesse?

a) Collectivité rurale _____
b) Ville _____

12. Langue maternelle du chef de ménage _____

13. Depuis quelle année habite-t-il à Kikwit?-_____

14. Depuis quelle année occupe-t-il la parcelle? _____

15. S'il est propriétaire, comment la parcelle a-t-elle été obtenue?

(i) Etat _____
(ii) Chef de terre _____
(iii) Héritage _____
(iv) Achat particulière _____

16. Est-ce qu'il y a des membres du ménage qui ont déjà eu des fonds des associations suivantes?

	SI OUI POUR QUEL BUT
1) Likelemba	
2) Tontine	_____
3) Association Villageoise	_____
4) Coopérative d'Epargne (CBZO)	_____
5) Compte BCZ	_____
6) Prêt BCZ	_____
7) Caisse d'Epargne	_____
8) Autre mécanisme de crédit	_____

17) Utilisez les codes suivants pour indiquer les buts demandés ci-haut.

A = Commerce
B = Education
C = Transport
D = Consommation/Obligations sociales
E = Construction
F = Achat de terre
G = Agriculture
H = Etablir une autre entreprise

	PERSONNE NO.	1	2	3	4	5	6	7	8	9	10	OBSERVATION

18. Pour chacun des membres du ménage énumérés à la question 10, mettez un crochet pour toute activité lui étant applicable.

A) Enfant pas à l'école :

B) Elève dans école:
   (i) Primaire
   (ii) Secondaire
        (Dans colonne "observations" indiquez la section et nom de l'école)
   (iii) Supérieur

C) Pour les salariés
   (1) Niveau

      (i) Cadre
      (ii) Ouvrier Qualifié
      (iii) Manoeuvre

   (2) Secteur
      (i) Education
      (ii) Santé
      (iii) Administration Etat
      (iv) Commerce
      (v) Transport
      (vi) Transformation (Scierie, moulin, couture)
      (vii) Autres

D) Est-ce qu'il est pensionné?

E) Est-ce qu'il travaille pour son compte personnel?

   (i) Est-ce qu'il est apprenti?
   (ii) Quel métier? (en français)
   (iii) Pour commerçant indépendant?

      (a) Lieu Fixe
      (b) Ambulant
      (c) Produits

(iv) Agriculture

(1) Est-ce qu'il a des champs dans les environs de Kikwit?
  (a) Combien de temps prend-il pour s'y rendre?

  (b) Mètres de longueur et largeur

  (c) Combien de Champs de:
    (i) Manioc
    (ii) Maïs
    (iii) Arachide
    (iv) Gourge
    (v) Maraicher
    (vi) Riz
    (vii) Autres

  (d) Est-ce qu'il vend sa production? Ou bien la consomme-t-il?

(2) Est-ce qu'il a des champs loin de Kikwit?
  (a) Quel collectivité?
  (b) Fréquence de visite par mois?
  (c) Nombre de mètres de longueur et de largeur?

PERSONNE NO.	1	2	3	4	5	6	7	8	9	10	OBSERVATION

18. Pour chacun des membres du ménage énumérés à la question 10, mettez un crochet pour tout énoncé lui étant applicable.

(d) Combien de champs de:
- (i) Manioc
- (ii) Maïs
- (iii) Arachide
- (iv) Gourge
- (v) Maraicher
- (vi) Riz
- (vii) Autres

(e) Main d'oeuvre
- (i) familiale
- (ii) payée en salaires
- (iii) payée en nature

(f) Est-ce qu'il a un élévage ?

- (i) Est-il à vendre?
- (ii) Ou est réservé pour des manifestations?
- (iii) Quel animal est le plus important?

F) Est-ce qu'il est chômeur?

G) Est-ce qu'il possède un moyen de transport:

- (i) pied
- (ii) vélo
- (iii) moto
- (iv) voiture personnelle
- (v) voiture de service
- (vi) camion personnel
- (vii) camion de service
- (viii) taxi, fula-fula

H) Combien d'années de formation complétées?

I) Indiquez ceux qui ont habité dans une autre ville pour une période de plus de deux mois avant d'habiter à Kikwit.

J) Indiquez pour chacun le nombre de mois qu'il a passé dans un village au cours de l'année dernière.

19. Nombre de personnes qui rendent visite à la parcelle à présent, et quelle est leur relation avec le chef de ménage:

Personne No. 1 _____ Age _____ Relation avec Chef de Ménage _____
Personne No. 2 _____ Age _____ Relation avec Chef de Menage _____
Personne No. 3 _____ Age _____ Relation avec Chef de Menage _____
Personne No. 4 _____ Age _____ Relation avec Chef de Menage _____

20. Raisons pour lesquelles chacun vient:
Pour chaque visiteur énuméré à la question 19, mettez un crochet pour chacune des raisons mentionnées sur les deux prochaines pages qui lui est applicable.

RAISONS DE VISITES 1 2 3 4 5 6

a) Soins santé

b) Mission de service

c) En transit

d) Stage d'étude

e) Aventure en ville (tourisme)

f) Recherche d'un emploi
   (i) A t-il trouvé un emploi?
   (ii) Est-ce qu'il pense s'installer définitivement à Kikwit?

g) Apprentissage

h) En transit raisons commerciales

i) Durée totale prévue de la visite (à partir de la date d'arrivée)

j) Destination après:

   (i) Autre ville
   (ii) Village

k) Pourquoi choisir une nouvelle destination?

   (i) Maladie
   (ii) Education
   (iii) Recherche d'un emploi
   (iv) Commerce

l) S'il est en transit pour raisons commerciales:

   (i) Vente de produits à Kikwit?

   (ii) Vente de produits à Kinshasa?

   (iii) Quel autre destination pour la vente de ses produits?

   (iv) Quels produits?

   (v) Achat de produits à Kikwit?

   (vi) Achat de produits à Kinshasa?

RAISONS DE VISITES	1	2	3	4	5	6
(vii) Acheter des produits à quel autre endroit?						
(viii) Acheter quels produits?						
m) Venu pour chercher du crédit?						
(i) Pour quelle activité?						

1. ZONE :

2. QUARTIER :

3. BALA-BALA : :

4. MFUMU YA FAMILIA KELE (Chef de famille)
   (a) MUKWA LUPANGU
   (b) LOCATAIRE
   (c) KANA YANDI KELE LOCATAIRE YANDI KEFUTAKA IKWA NA NGONDA

5. BA FAMILIA IKWA KELE NA KATI YA LUPANGU
   (En cas de plusieurs ménages, faire une fiche enquête par ménage)

6. NA KATI YA LUPANGU

(a) MASA ya Régideso ikele	Oui	Non
(b) MINDA ya SNEL ikele	Oui	Non
(c) GROUPE ya Courant ya YANDI MOSI	Oui	Non
(d) BILANGA YA FIOTI(Jardin)	Oui	Non
(e) NTI YA MABUNDU	Oui	Non
(f) BITNISI (petit élévage)	Oui	Non
(g) NKI BITNISI KULUTA MINGI		

7. NZO IKELE YA KUTUNGA TI INKI ?
   (a) BRIQUE TI MANZANZA
   (b) BA NTI TI MANZANZA
   (c) BA NTI TI NIANGA

8. MFUMU YA FAMILIA (Chef de ménage)
   (a) BAKALA M
   (b) NKENTO F

9. INKI INZO NKANDA MFUMU YA FAMILIA KUSALA KA ?
   (encerclez un chiffre pour la dernière année faite)

(a) PRIMAIRE	0	1	2	3	4	5	6
(b) SECONDAIRE	0	1	2	3	4	5	6
(c) SUPERIEURE	0	1	2	3	4	5	6

10. FAMILIA KELE NA BANTU IKWA ? NKI MUTINDU BANTU YINA IKELE TI MFUMU YA INZO (Tous le monde sauf les visiteurs de passage à la maison)

. PERSONNE N° 1
. _____ N° 2
. _____ N° 3
. _____ N° 4
. etc.....

11. MFUMU YA FAMILIA KUZINGAKA WAPI NA KILEKE NA YANDI
    (a) NA COLLECTIVITE RURALE
    (b) NA VILLE
12. YANDI IKELE NKI NDINGA
13. MFUMU YA FAMILIA IKELE NA KIKWIT TUKA INKI MVULA
14. YANDI KELE NA LUPANGU YAI TUKA INKI MVULA
15. KANA YANDI KELE MUNKWA YA LUPANGU YANDI KUZUAKA LUPANGU YAI INKI MUTINDU
    (i) NA CADASTRE
    (ii) NA MFUMU NTOTO
    (iii) NA FAMILIA (Heritage)
    (iv) YANDI SUMBAKA NA MUNTU
16. KETI NA KATI YA FAMILIA KELE TI BANTU MENE ZUAKA BONGO KETI BIMA NA BIMVUKA YAI, YE SAMBU NA INKI ?

	SI OUI	POURQUOI
LIKELEMBA		
TONTINE		
ASSOCIATION YA MARWALA		
COOPERATIVE YA EPARGNE (BONSO CEREZO)		
BANQUE COMMERCIALE ZAIROISE		
PRET YA BANQUE		
CAISSE D'EPARGNE		
YA NKAKA. (Spécifier laquelle)		

17. Pour remplir le tableau du poste 16, se servir du Code ci-après.
    A = Commerce
    B = EDUCATION
    C = TRANSPORT
    D = CONSOMMATION (obligation sociale, subvenir au besoin de quelqu'un malade)
    E = CONSTRUCTION
    F = ACHAT DE TERRAIN
    G = Agriculture
    H = ETABLISSEMENT, ENTREPRISE

NB. Mettre une croix suivant la personne comme classifier à la question 10

PERSONNE N°	1	2	3	4	5	6	7	8	9	10	OBSERVATION
18. KISALU YA NKONSO MUNTU (activité de chacun)											
A) BANA KELE KOTAKA NZO-NKANDA VE											
B) BANA YA NZO-NKANDA											
(i) PRIMAIRE											
(ii) SECONDAIRE (Dans colonne observation noté la Section et le lieu											
(iii) SUPERIEUR (Lieu)											
C) SAMBU NA BA SALARIE											
(1) Niveau											
(i) CADRE											
(ii) OUVRIER QUALIFIE											
(iii) MANOEUVRE											
(2) SECTEUR											
(i) EDUCATION											
(ii) SANTE											
(iii) ADMINISTRATION ETAT											
(iv) COMMERCE											
(v) TRANSPORT											
(vi) TRANSFORMATION (Scierie - Moulin-Couture)											
(vii) AUTRES											
D) PENSIONNE											
E) SAMBU NA BANTU YINA KELE SALAKA NA COMPTE NA BAU MOSI											
(i) KELE LONGUKAKA KISALU											
(ii) INKI KISALU (spécifier)											
(iii) COMMERCANT											
(a) FIXE											
(b) AMBULANT											
(c) NKI MBIMA YAUDI KELE TEKAKA											

PERSONNE NO	1	2	3	4	5	6	7	8	9	10	OBSERVATION
IV) KISALU YA BILANGO											
(1) NA MUNZIUNGA YA KIKWIT											
(a) TANGU IKWA NGE KELE SALAKA SAMBU NA KUKWE-NDA DA BILANGA (Ordre de grand.)											
(b) NDA TI NENE YA BILANGA NA NGE (Ordre de grandeur)											
(c) TALU YA BILANGA NA NGE (Nbre)											
(1) MANIOC											
(II) MAIS											
(III) ARACHIDES											
(IV) GOURGES (Manteke)											
(V) BILANGA YA NDUNDA											
(VI) RIZ											
(VII) AUTRE (Spécifier)											
(d) BENO KELE TEKAKA BIMA YONSO ou bien beno kele Kudiaka vo											
(2) BILANGA KELE NA MABWALA											
(a) NA MAPI (citez le nom de la Collectivité)											
(b) MBALA IKWA NGE KELE KWENDAKA KUNA (par mois)											
(c) NDA TI NENE YA BILANGA NA NGE (Ordre de grandeur)											
(d) TALU YA BILANGA NA NGE (Nbre)											
(1) MANIOC											
(II) MAIS											
(III) ARACHIDE											
(IV) GOURDE (Manteke)											
(V) BILANGA YA NDUNDA											
(VI) RIZ											
(VII) AUTRE (spécifier)											

PERSONNE N°	1	2	3	4	5	6	7	8	9	10	OBSERVATION
(e) BANTU YA KELE SALAKA BILANGA YINA											
(1) BA BANGI YA FAMILIA											
(II) BANTU YA KISALU NGE KELE FUTAKA BAU MBONGO											
(III) BANTU YA KISALU NGE KELE PESAKA BAU BIMA KELE BASIKA NA BILANGA.											
(f) KETI BENO KELE SANSAKA BITUISI (Cocher et écrire en dessous du N° de la personne qui fait ça).											
(1) YAU KELE YA KUTEKA											
(II) KETI YA KUDIA KAKA											
(III) NKI BITUISI KULUTA MINGI											
F. KETI BA CHOMEUR KELE											
G. NA KUKWENDA NA KISALU, NA NZO-NKANDA, NA BILANGA NKI MOYEN YA TRANSPORT BENO KELE BAKA											
(1) MAKULU											
(II) VELO											
(III) MOTO											
(IV) VOITURE PERSONNELLE											
(V) --"- DE SERVICE											
(VI) CAMION PERSONNEL											
(VII) CAMION DE SERVICE											
(VIII) TAXI-FULA-FULA											
H. SAMBU NA BA YINA KELE NA NZO-NKANDA VE BA YINA KELE SALAKA NKI NZO-NKANDA BAU SUKAKA											
I. BA NANI NA KATI YA Famille KUZINGAKA NA VILLE YA NKAKA, NA TWALA YA KIKWISA KUVANDA NA KIMIT.											
J. TULA TALU YA BANGONDA YA KONSO MUNTU YA FAMILIA KULUTAKA NA BWALA NA Année 82.											

19) BANZENZA KELE NA NZO NA BILUMBU YAI MENE KATUKA NA BWALA YA NKAKA

PERSONNE N°	MVULA (Age)	RELATION AVEC CHEF DE MENAGE
1		
2		
3		
4		

20. KIKUMA YA YANDI KELE AWA NA KIKWIT
(Crocher pour chaque cas)

	N°	N°	N°	N°	OBSERVATION
(a) MALADI					
(b) NA NZILA YA KISALU (Mission de Service)					
(c) KULUTA (en Transit)					
(d) STAGE (ETUDE)					
(e) KUTAMBULA BAMBA (Touriste)					
(f) KUSOSA KISALU					
(1) KETI YANDI ME ZWA KISALU					
(II) YANDI KELE KUBANZA KUVANDA KIMAKULU NA KIKWIT.					
OUI					
NON					
(g) MENE KUISA KULONGUKA KISALU					
(h) NA KULUTA SAMBU NA COMMERCE NA YANDI					
(i) TANGU IKWA YANDI KELE KUSALA AWA (à partir de la date de son arrivée).					
(j) NA NIMA YANDI TA KWENDA MAPI ?					
(1) NA VILLE YA KAKA					
(II) NA BWALA					
(k) SAMBU NA INKI					
(1) MALADI					
(II) NZO-NKANDA					
(III) KUSOSA KISALU					
(IV) COMMERCE					