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**Getting and Spending:
Household Economy in Rural Burundi**

By

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with the assistance of
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Executive Summary

This report presents the results of a survey of Burundi household economy. The survey was conducted by the Institute for Development Anthropology during July - September 1989, in twenty-four communes and six regional urban centers throughout the country. A total of 339 rural households were interviewed to collect baseline quantitative data on household income, expenditures and consumption in rural Burundi. In addition, 108 households in the capital city of Bujumbura were interviewed between September and October, 1989. The principal objective of the urban research was to determine salient urban income-earning strategies and the extent of economic linkages between rural and urban sectors. The primary purpose of the rural survey was to determine the structure and performance of the rural economy. Because rural households comprise most of Burundi's population, these data can be used for formulating policies appropriate for rural development. Furthermore, the acquisition of microlevel data on interhousehold variation in different geographical and social contexts, including Burundi's different ecological regions, secondary urban centers and national border areas will facilitate analysis on the effects of changes in Burundi's national economic policies.

The urban data reveal substantially higher incomes and welfare levels than rural households, but also indicate the prevalence of economic interaction between the rural and urban sectors. More than 25 percent of urban households farm actively, and farming is the predominant economic activity of Bujumbura women. Likewise, the research indicates that rural households engage in a variety of income-earning activities and that while agriculture is the prime economic activity for much of the population, nonfarm activities are nonetheless very important. Indeed, in terms of cash income, the nonfarm sector is actually a more significant source of revenue than agriculture. Men travel to do commerce and wage labor, while agriculture is the responsibility of women. Animal husbandry is a minor component of the rural economic system, oriented toward supplying local needs for food and cash rather than production for the urban market. Preliminary data indicate that the primary sources of income derived from agricultural production are sales of crops and processed agricultural products such as banana beer; the major nonagricultural sources of income are individual commercial enterprises, salaried work and wage labor.

The data also reveals a striking contrast in the economic status of the richest and poorest income quartiles. Data indicates that the richest quartile of households earns approximately 80 percent of total income, while the poorest quartile accounts for only 2 percent. Average annual cash income among households in the richest quartile is more than 50 times greater than that of the poorest quartile. There is also

profound intrahousehold disparity in cash incomes and substantial interregional differentiation in economic condition; households in the Central Plateau earn and spend more than those in the rest of the country and the lowest incomes are found in the Transitional Zone, Bututsi region and Eastern Plains.

Although Burundi's rural population is characterized as subsistence farmers, this research demonstrates that they are not economically autonomous but linked to the wider economic system to obtain the food and consumer goods necessary for daily life. People travel to regional urban centers and the national borders to obtain these goods and earn money through trade and resale. Provisioning the rural household with food, drink and supplies such as fuel accounts for more than half of its annual expenditures; almost one-third of its cash is spent on nonagricultural necessities such as consumer goods, housing and education, and approximately one-fifth is invested in agricultural production. Thus, the rural economy is dynamic and heterogenous; rural households have developed diversified income bases to which agriculture makes an important but not solitary contribution.

This report provides a wealth of data that can be utilized for monitoring the social and economic effects of Burundi's policy reform program. As such, it represents the first stage of a data collection activity, which should be updated at intervals of two to three years. The report points to several critical indicators of household welfare -- including income, expenditure, and employment -- that could be used for monitoring purposes. At the regional level, future surveys also could demonstrate the impacts of policy changes on rural urban relations, wage labor markets, and agricultural market patterns.

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A number of people at USAID/Bujumbura and the Small Farming Systems Research Project in Gitega deserve my thanks. Aster Kassa Moussie organized the logistics and finances of a team that was based in Gitega but traveled continuously; Menwouyellet Moussie provided the use of the SFSR office resources and personnel, and his knowledge of working in rural areas. Nancy Rosen supervised the fieldwork in Bujumbura with only a moment's notice, wrote part of the report and worked on the computer input. Jeffrey White's expertise with all aspects of computers and their operation was indispensable, as was his patience with the uninformed. Colleagues in other institutes who were knowledgeable about Burundi, Derk Bergen of ISABU and Luc D'Haese of FACAGRO, shared their time and experience and answered many questions about doing fieldwork in the country.

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I. INTRODUCTION AND ORGANIZATION OF THE REPORT

The primary purpose of the research presented in this report is to delineate the structure and performance of the rural economy. Within this framework the research explores: interhousehold and regional differentiation in incomes and expenditures; linkages between rural and urban sectors of the economy; and household economic interaction with countries bordering Burundi. Households were selected as a unit of analysis in order to determine income, expenditure and consumption patterns in locations with different demographic and geographic characteristics: secondary urban centers, areas of markedly high or low population density, and areas near or far from the country's borders and urban centers.

The secondary purpose of the research is to provide a national-level, comparative set of data on rural Burundi that heretofore was not available. Although the SARSA data are preliminary and considerably more analysis is required to address important empirical questions, it is the first data set to examine the dynamics of rural household economy.

The primary objective of this research is to provide baseline data on rural households that constitute most of Burundi's population, data that will contribute to the formulation of public policies appropriate for rural development. A secondary objective is to provide microlevel economic data that will be useful for monitoring and analyzing the impact of changes in Burundi's national economic policies. This data will also facilitate the examination of urban household economic activities.

The study was organized to yield data and analysis in a cost-effective, rapid fashion. No more than six months elapsed between the design of the study and the availability of preliminary data analysis for use in USAID programs. Because the study confronted serious time and resource constraints, data collection and design did not have the luxury of considerable pre-testing and revision. We also made a decision -- in part to reduce the scope of the study -- to focus solely on cash incomes and transactions rather than on total income (cash and subsistence) and consumption. This means that agricultural incomes, of which 60 to 70 percent are in the form of subsistence value, are greatly underestimated in the report's income analysis (see Figure 1). Nonetheless, since one of our original concerns was to document the degree of commercialization among households in Burundi, this shortcoming should not detract from the value of the report. Other studies are available that document the important contribution of agriculture to subsistence incomes among rural households in Burundi (see SNES 1989).

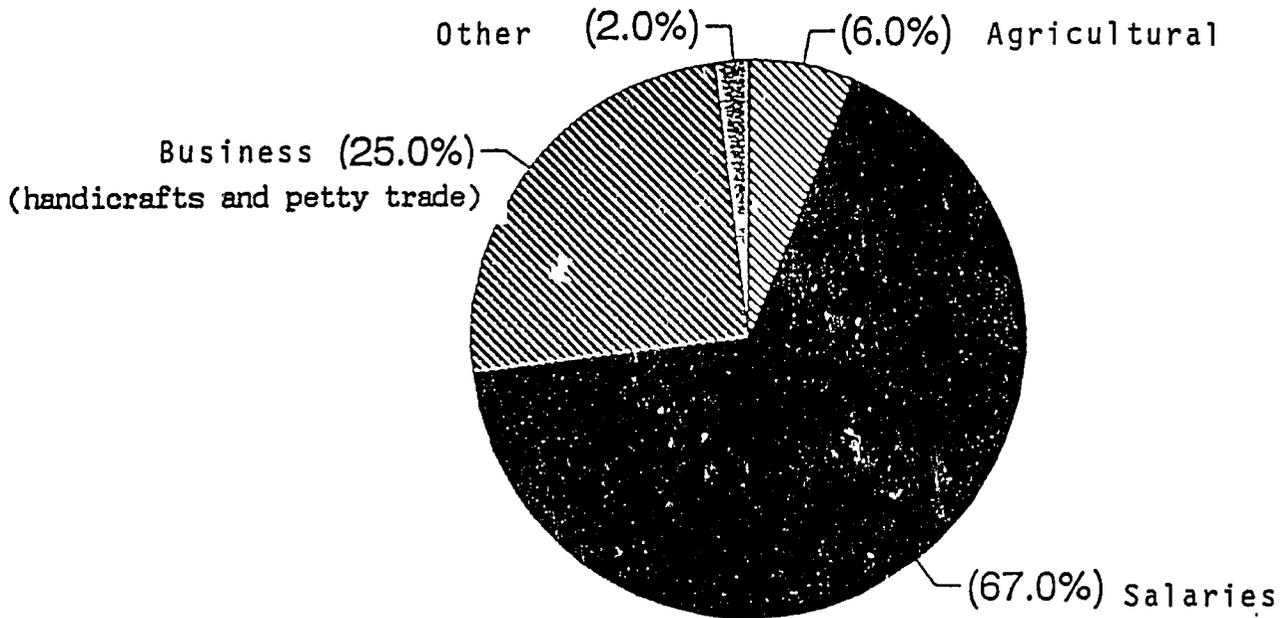
The report is organized into ten major sections. The first section summarizes the results of the research on household economy and the second section presents the methodology used to select research sites and conduct the survey. Section III describes the household demography, education, and economic status of the rural population. Sections IV and V explain the sources and levels of household income and the types and levels of expenditures, respectively. The conclusions regarding household economy and a comparison of these data with previous research is presented in Section VI. A discussion of rural linkages with the economies of urban centers and neighboring countries and an analysis of rural travel patterns is presented in Section VII. Section VIII contains a qualitative description of the rural economy and a synopsis of the rural population's expressed needs in each of the regions surveyed. A brief review of urban household economy, summarizing the preliminary data that is available from the survey in Bujumbura, is in Section IX. Finally, Section X presents a summary and conclusions.

In concluding, most tables, such as Table 11 for example, present percentages given for "all regions" and for each of the six regions that were surveyed. The last figure ("all regions") is the percent of all rural households in the sample. Unless otherwise noted, the percents for each region are the percent of that last figure.

FIGURE 1

Different Sources of Rural Income

Richest Quartile of Households



All Other Households

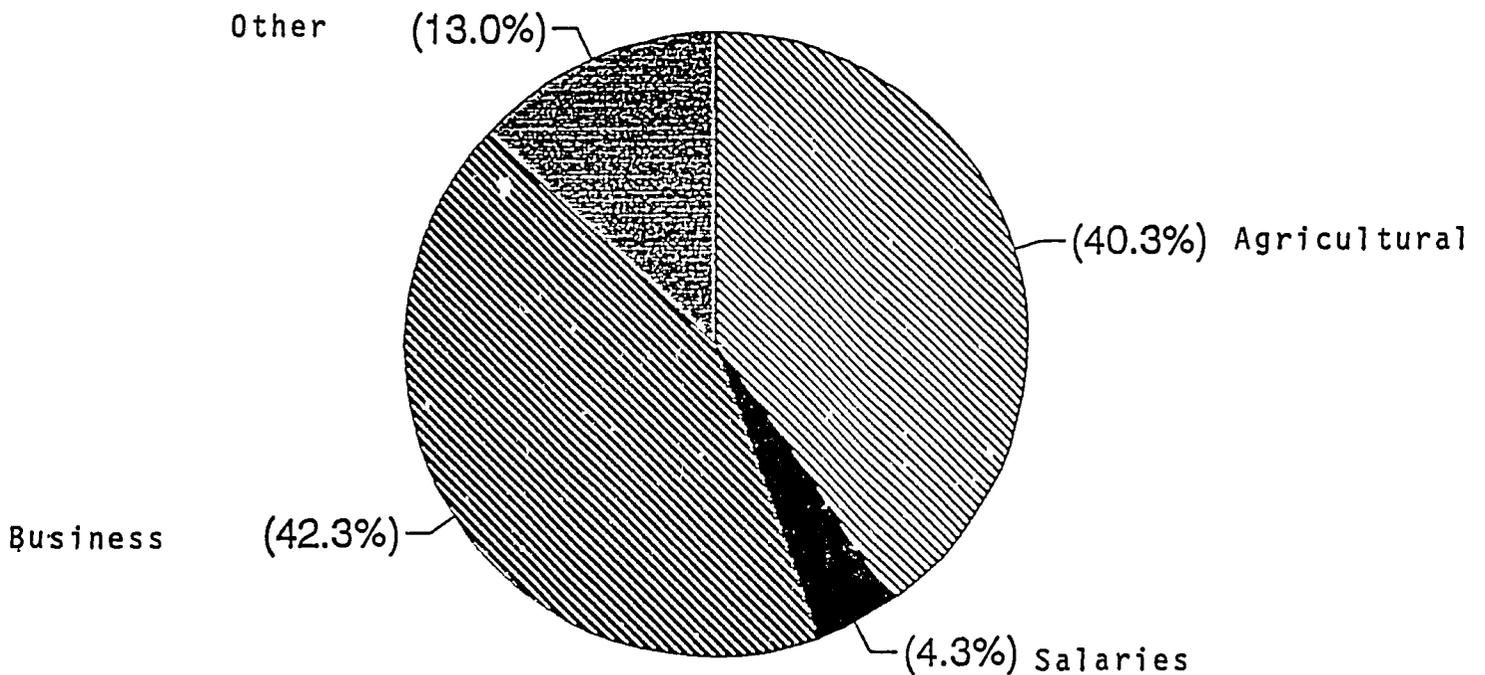
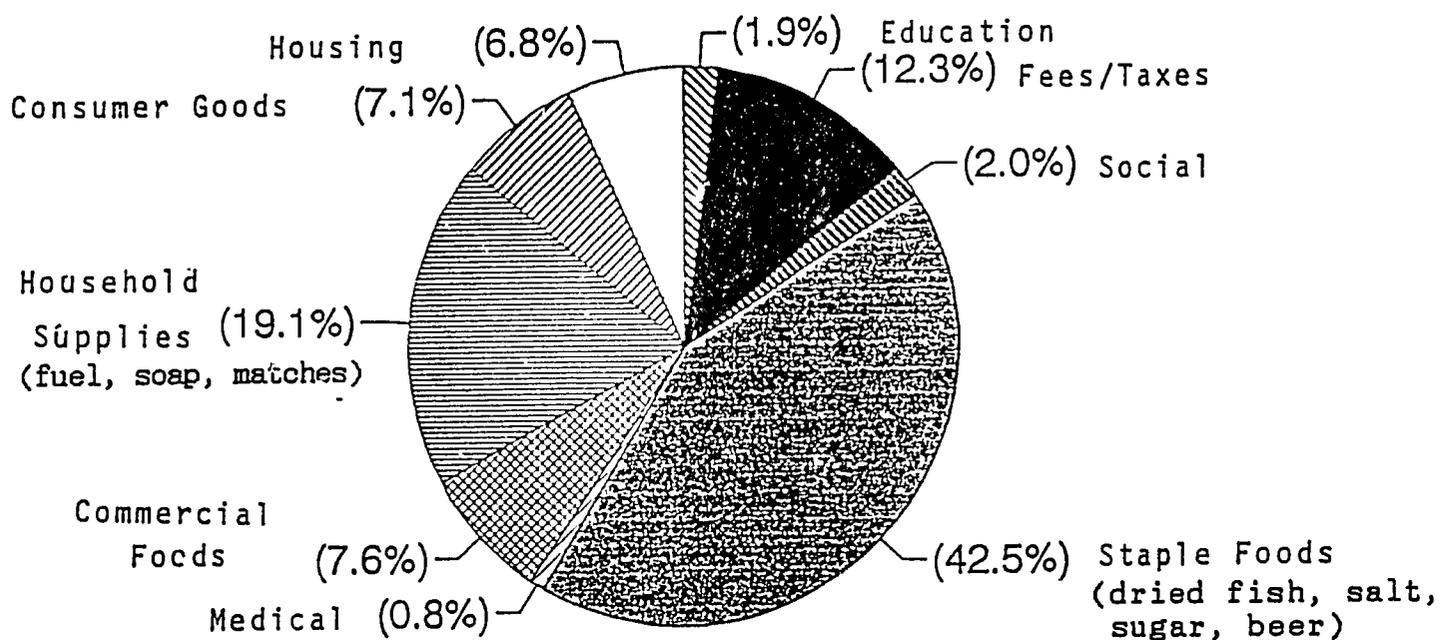


FIGURE 2

Summary of Rural Expenditures (Percentage of Total)



II. METHODOLOGY

The sample for this survey was chosen with help from SNES (National Service of Research and Statistics) in Bujumbura and the Department of Population in Gitega. The country was divided into six agro-ecological regions (see Map 1) based on ISABU's definition of Burundi's ecological zones (Bureau Central de Recensement 1988). Using Map 2, which delineates all the communes in the country, a list of the communes in each ecological region was compiled (a commune is an administrative unit similar to a county). A complete list of the communes by ecological region is provided in Annex 1; it is a useful reference for further research, as the boundaries of the ecological zones do not coincide with the boundaries of the provinces and communes that are administrative units.

Four communes from each region were chosen for the survey, based on the following criteria: one with a high population density, one with low population density, one near a population center and one far from a population center. A secondary criterion was that one of the communes be situated on a national border. The demographic data for selecting the communes was taken from "Population, Superficie et Densite par Province, Commune et Colline, Selon le Recensement General de la Population 1979," Ministere de l'Interieur, Bureau Central de Recensement (Bureau Central de Recensement 1988). The primary urban center in each region was chosen on the basis of economic importance and population, following the advice of personnel in the Department of Population in Gitega.

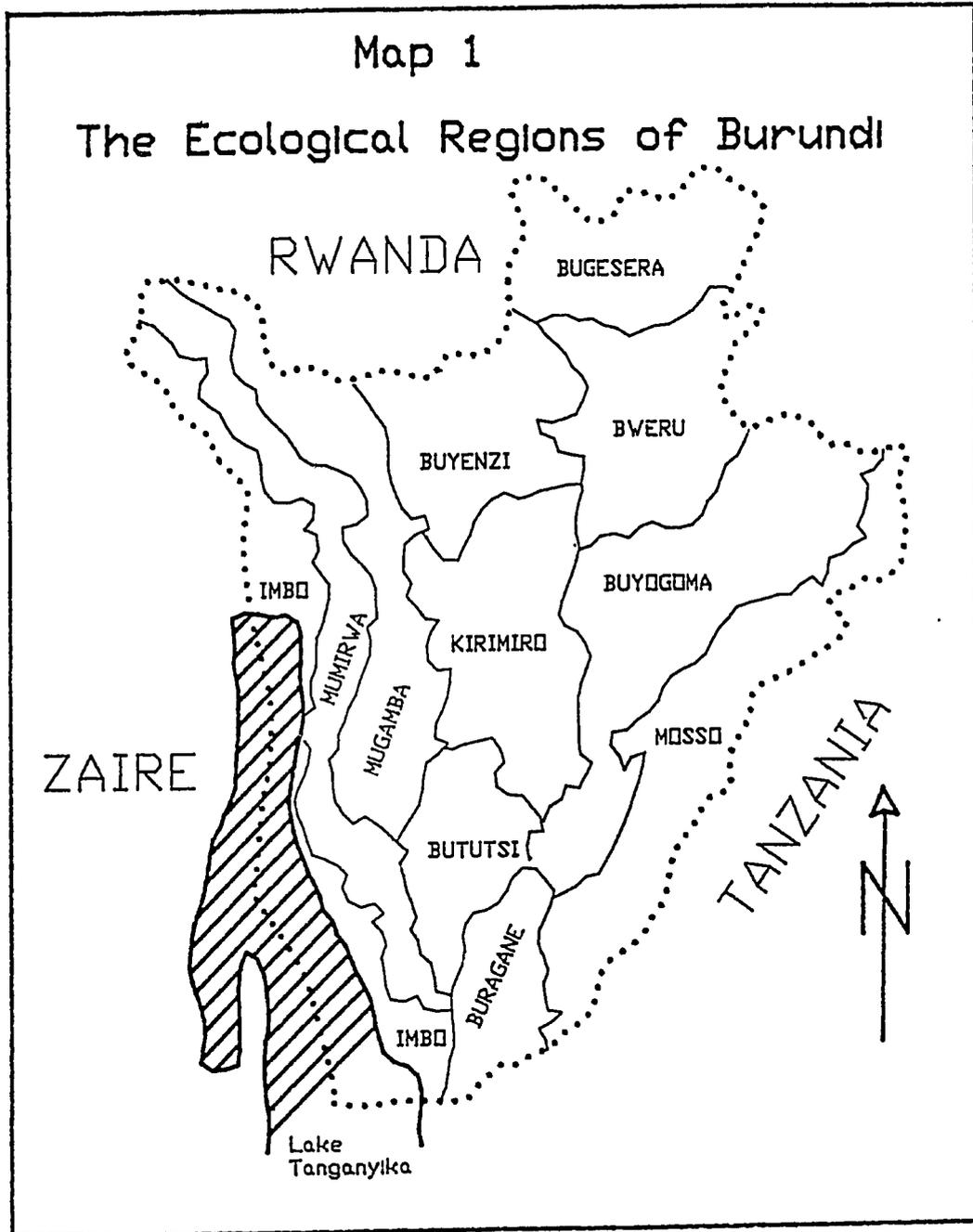
The ecological regions, urban centers and communes that comprise the sample are:

- I. The Central Plateau, comprising the regions of Buyenzi, Kirimiro, Bweru and Buyogoma.
 1. Primary urban center, Gitega.
 2. A commune with high population density, Nyzmurenza (387 people per km/sq).
 3. A commune with low population density and on the Tanzanian border, Kigamba (29 per km/sq).
 4. Near a population center, Giheta commune.
 5. Far from a population center, Gitaramuka commune.

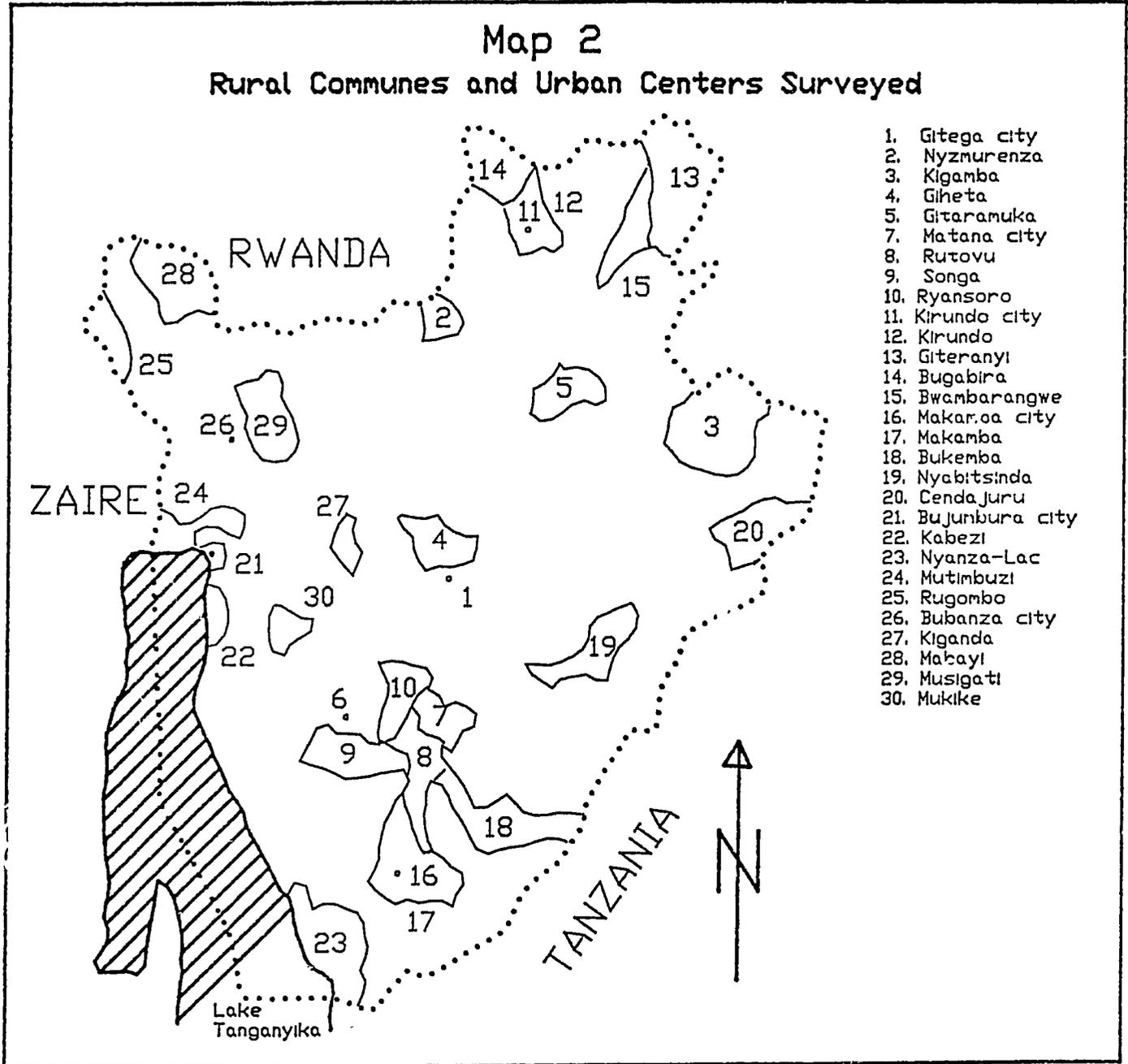
- II. The Southern Plateau, Bututsi region.
 1. Primary urban center, Matana.
 2. A commune with high population density, Buraza (194 per km/sq).
 3. A commune with low population density, Rutovu, (111 per km/sq).
 4. Near a population center, Songa commune.
 5. Far from a population center, Ryansoro commune.

Map 1

The Ecological Regions of Burundi



Map 2
Rural Communes and Urban Centers Surveyed



- III. The Northern Depression, Bugesera region.
1. Primary urban center, Kirundo.
 2. A commune with high population density, Kirundo (216 per km/sq).
 3. A commune with low population density and on the Rwandan border, Giteranyi (81 per km/sq).
 4. Near a population center, Bugabira commune.
 5. Far from a population center, Bwambarangwe commune.
- IV. The Eastern Depression, Kumoso and Buragane regions.
1. Primary urban center, Makamba.
 2. A commune with high population density, Makamba (142 per km/sq).
 3. A commune with low population density, Bukemba (34 per km/sq).
 4. Near a population center, Nyabitsinda commune.
 5. Far from a population center and on the Tanzanian border, Cendajuru commune.
- V. The Lake Zone, Imbo region.
1. Primary urban center, Bujumbura.
 2. A commune with high population density, Kabezi (392 per km/sq).
 3. A commune with low population density, Nyanza-Lac (18 per km/sq).
 4. Near a population center, Mutimbuzi commune.
 5. Far from a population center and on the Zairian border, Rugombo commune.
- VI. The Transitional Zone, Mugamba and Mumirwa regions.
1. Primary urban center: Bubanza.
 2. A commune with high population density, Kiganda (307 per km/sq).
 3. A commune with low population density and on the Rwandan border, Mabayi (82 per km/sq).
 4. Near a population center, Musigati commune.
 5. Far from a population center, Mukike commune.

In each commune, one colline (hillside neighborhood) and ten households were chosen randomly for the survey. The sample of households was chosen from the chief's (chef de colline's) list of all households on the colline, using a table of random numbers. The "household" was defined as the people who customarily ate and slept together in the same house, and who were present on the day of the interview. The chief and survey director explained the project to the selected households and made appointments for the interviews. Each interview required approximately one hour to complete and all of the interviews in a colline were conducted on the same day, usually in the morning. While the enumerators interviewed individual households the director interviewed a group of men and women to collect

qualitative data on the local economic system and the farmers' priorities for rural development.

Except in Bujumbura, the sample in each regional urban center consisted of twenty households chosen randomly from lists of residents obtained from the administrative offices or the neighborhood chiefs (chefs de quartier). The same procedure was followed to notify the households, make appointments for the interviews and conduct all the interviews in one day. In Bujumbura 108 households were interviewed, 12 in each of the city's nine neighborhoods (quartiers). These neighborhoods have been characterized according to the residents' economic status (Phillips 1987), and are: Musaga, Cibitoke, Kamenge, Kinama, Bwiza and Buyenzi, lower income; Ngagara and Nyakabiga, middle income; and Rohero, upper income. The households for the survey in the capital were chosen randomly from lists of names obtained in each neighborhood's administrative offices (chef de zone) or by randomly choosing house numbers on each avenue in the neighborhood. The urban interviews took approximately one hour to complete.

The questionnaire for the rural households and regional urban centers was designed in French, then pretested and revised. The final version was translated and administered in Kirundi (see Annex 2). A team of ten Burundi enumerators, trained by the survey director, conducted all of the rural interviews. A second questionnaire was designed for the urban survey in Bujumbura, based partly on that used by Dayer and Phillips for previous surveys in the capital (see Annex 2) (Dayer 1979, Phillips 1987). The questionnaire in Bujumbura was administered in French by the same team of enumerators. In both the rural and urban surveys every effort was made to interview the male and female heads of households (couples) together.

The sample for the survey consisted of 338 rural households, including 100 households in regional urban centers, and 108 households in Bujumbura, comprising a total of 446 households. The survey in the rural areas and regional urban centers was conducted during July 19 - September 14, and the survey in Bujumbura was conducted during September 17 - October 6, 1989.

The data was entered onto computers using the Reflex 2.0 data base management program and analyzed for this report with the SYSTAT statistical program. The exchange rate was calculated at 160 FBU = \$ US 1.

III. THE RURAL HOUSEHOLD: DEMOGRAPHY, EDUCATION, HOUSING AND MATERIAL POSSESSIONS

1. Household Demography: Residents, Visitors and Migrants

The rural Burundi household is generally small and has a male head of household. Three-quarters (77 percent) of the rural households have one to seven members; only 20 percent have eight to ten members. Twenty percent of the rural households surveyed have female household heads. As Table 1 indicates, the average rural household contains 5.4 resident members, 2.9 adults (defined as those with 15+ years of age) and 2.5 children (0-14 years of age). Approximately three of these household members are male and three are female (see Table 1). Household size does not vary significantly by region; it is slightly larger in Bututsi and the Eastern Depression (5.7 and 6 members respectively), and slightly smaller in the Lake Zone and the Central Plateau (5.3 members) (see Table 1). As noted earlier, household members were defined as those who customarily ate and slept under the same roof and were present the day of the interview.

The number of absent household members (migrants) and visitors in rural households is small. A total of 126 migrants were reported among the 338 households surveyed. They average less than one per household -- 0.4 per household for the rural sample as a whole -- with a maximum of five reported in one household. The number of absent household members differs significantly in the Bututsi region where the average is 0.8 absentees per household. Bututsi is predominantly populated by the Tutsi who traditionally serve in the military and are frequently absent from their households. Another significant category of absentees is students who leave home to continue their education. Most (69 percent) of the absentees are men who are absent about half of the year, an average of 174 days. Motivations for migration include study (22 percent), salaried work (21 percent) and/or farm labor (20 percent). Migration of household members will be discussed in Section VII.

Visitors also are few: only 41 were reported in all rural households. The average does not vary significantly by region and is less than one per household, 0.1 for the rural sample as a whole, with a maximum of three reported in one household. Most (63 percent) of the visitors are women and their average stay is approximately a month (34 days). Visitors occupy themselves mainly with agriculture and education.

2. Education

The population that was surveyed has had little formal education: an average of 3.4 years for adult men and 2.5 years

Table 1. Rural Household Composition by Region

| Region | No. Adult Fems. ² | No. Adult Males | No. Child Fems. | No. Child Males | Total Adults | Total Child. | Total H.H. |
|----------------------|------------------------------|-----------------|-----------------|-----------------|--------------|--------------|------------|
| Central Plateau | 1.4 | 1.5 | 1.3 | 1.1 | 2.9 | 2.4 | 5.3 |
| Bututsi | 1.7 | 1.3 | 1.2 | 1.5 | 3.1 | 2.7 | 5.7 |
| Eastern Depression | 1.5 | 1.4 | 1.5 | 1.5 | 3.0 | 3.0 | 6.0 |
| Transitional Zone | 1.3 | 1.5 | 1.3 | 1.4 | 2.8 | 2.7 | 5.5 |
| Bugesera | 1.5 | 1.3 | 1.3 | 1.4 | 2.8 | 2.7 | 5.6 |
| Lake Zone | 1.4 | 1.5 | 1.1 | 1.3 | 2.9 | 2.4 | 5.3 |
| Rural (All Regions) | 1.4 | 1.5 | 1.3 | 1.3 | 2.9 | 2.5 | 5.4 |
| Burundi ³ | 1.4 | 1.5 | 1.3 | 1.3 | 2.9 | 2.5 | 5.4 |

¹Analysis is based on weighted sample

²adult = 15+ years of age; child = 0-14 years.

³Includes both rural and urban samples.

for adult women (see Table 2). The highest averages for both men and women, 3.5 and 2.9 years respectively, are in the Central Plateau, [Men in the Transitional Zone also average 3.5 years of education (see Table 2)]. The lowest averages for both sexes are in the Lake Zone (which does not include data from the urban population in Bujumbura) and the Eastern Depression (see Table 2). In all regions women have had fewer years of education than men and on the average have spent considerably less time in school (38 percent) than men. Rural children (up to 14 years of age) have an average of 2.0 years of education, however, unlike adults, this group reveals more education among the females than males (see Table 2).

3. Housing and Material Possessions

The characteristics of rural housing and services are summarized in Table 3. Most houses have more than three rooms (3.6), including interior kitchens (54 percent). They generally have wooden walls (64 percent) and doors (85 percent), thatch roofs (53 percent), dirt floors (85 percent) and small openings with wooden shutters that serve as windows (49 percent). The type of construction that indicates material well-being is largely lacking: only 39 percent of the households surveyed have metal roofs, 14 percent have cement floors and 12 percent have windows with glass.

The great majority (94 percent) of rural houses does not have electricity although almost half (46 percent) have access to running water from faucets inside the house, in the yard or in the neighborhood. Without indoor plumbing, most houses have pit latrines (94 percent) and only 30 percent have indoor shower rooms.

Housing in the Lake Zone falls slightly below these standards, even though two of the communes surveyed in this zone are near Bujumbura. Overall, the houses in the Lake Zone have fewer rooms and more exterior kitchens. Pit latrines, metal roofs, cement floors, wooden window shutters and windows with glass are less common in this zone than the others. The traditional straw huts are still used as housing in Mutimbuzi, a commune only 25 kilometers from Bujumbura, because the typical rural housing described above is usually damaged by rainy-season floods and the inhabitants cannot afford to rebuild each year. Bututsi is another region with poor housing: a smaller proportion of the houses there has interior kitchens, electricity, metal roofs and cement floors than in the other zones. Better than average housing is found in the Central Plateau and Bugesera regions, where more houses have interior kitchens, metal roofs, cement floors and windows with glass.

Rural households generally own little furniture and few consumer goods. Beds, tables and chairs made by local carpenters

Table 2. Rural Mean Education in Years

| Region | All Adults | All Children | Male Adults | Male Children | Female Adults | Female Children |
|----------------------|------------|--------------|-------------|---------------|---------------|-----------------|
| Central Plateau | 3.3 | 2.1 | 3.5 | 1.7 | 2.9 | 2.4 |
| Bututsi | 2.3 | 2.1 | 3.4 | 2.1 | 1.5 | 2.1 |
| Eastern Depression | 2.3 | 2.3 | 2.9 | 2.3 | 1.8 | 2.3 |
| Transitional Zone | 3.1 | 1.9 | 3.5 | 2.0 | 2.6 | 1.8 |
| Bugesera | 2.4 | 1.7 | 2.9 | 2.0 | 2.0 | 1.4 |
| Lake Zone | 2.0 | 1.5 | 2.6 | 2.0 | 1.5 | 1.1 |
| Rural (All Regions) | 2.9 | 2.0 | 3.4 | 1.9 | 2.5 | 2.1 |
| Burundi ^b | 3.1 | 2.0 | 3.5 | 1.9 | 2.6 | 2.1 |

^aAdult =15+ years of age; child = 6-14 years of age.

^bIncludes both rural and urban samples.

Table 3. Type of Rural Housing and Services

| Percent of households ^a : | |
|--------------------------------------|-----|
| All Regions | |
| Type | |
| Average no. rooms | 3.6 |
| Interior kitchen | 54% |
| Electricity | 06% |
| Water, communal faucet | 41% |
| Water, improved natural source | 26% |
| Water, communal well | 20% |
| Exterior latrine | 94% |
| Shower room | 30% |
| Shower room, outside | 24% |
| Roof, thatch | 53% |
| Roof, metal | 39% |
| Walls, wood | 64% |
| Walls, adobe brick | 28% |
| Floors, dirt | 85% |
| Floors, cement | 14% |
| Ceiling | 19% |
| Ceiling, matting | 6% |
| Windows, wooden shutters | 49% |
| Windows, glass | 12% |
| Doors, metal | 4% |

^aAll regions = percent of the rural sample (338 hhs); for each region = regional distribution of those households.

Table 4. Type and Distribution of Rural Material Goods

| Item | Owned by, percent of households | Artisanal manufacture, % of HHs | Industrial manufacture, % of HHs |
|--------------------|---------------------------------------|---------------------------------------|--|
| Radio | 27% | | |
| Bicycle | 14% | | |
| Tape player | 9% | | |
| Iron, charcoal | 25% | | |
| Iron, electric | 6% | | |
| Wick lamp | 54% | | |
| Hurricane lamp | 29% | | |
| Coleman lantern | 8% | | |
| Sewing machine | <1% | | |
| Stove | 2% (5 hhs) | | |
| Refrigerator | 2% (5 hhs) | | |
| Television | <1% (3 hhs) | | |
| Car | <1% (2 hhs) | | |
| Truck | <1% (1 hh) | | |
| Motorcycle | <1% (3 hhs) | | |
| Pirogue (canoe) | <1% (3 hhs) | | |
| Beds | | 92% | 11% |
| Dining room table | | 50% | 5% |
| Coffee table | | 32% | 5% |
| Chairs | | 82% | 5% |
| Armoire (cupboard) | | 11% | 4% |
| Couch | | 3% | 5% |
| Mattress | | 25% | 18% |

Table 5. Distribution of Rural Material Goods by Region

| Item | Percent of households having: ¹ | | | | | | |
|-------------------------|--|---------|-------------|-----------|---------------|-----------|-------------|
| | Central Plateau | Bututsi | Trans. Zone | Lake Zone | East. Depres. | Buge-sera | All Regions |
| Radio | 30% | 23% | 33% | 10% | 28% | 28% | 27% |
| Bicycle | 32% | 2% | 2% | 20% | 15% | 2% | 14% |
| Iron, charcoal | 30% | 25% | 17% | 18% | 27% | 25% | 25% |
| Hurricane lamp | 33% | 20% | 30% | 20% | 28% | 30% | 29% |
| Beds, artisanal | 82% | 92% | 92% | 65% | 93% | 95% | 92% |
| Dining table, artisanal | 33% | 47% | 60% | 32% | 52% | 57% | 50% |
| Armoire, artisanal | 8% | 3% | 18% | 5% | 7% | 18% | 11% |
| Mattress, artisanal | 18% | 25% | 27% | 20% | 27% | 7% | 7% |

are common; factory-made furniture is rare (see Table 4). Less than one-third of rural households own radios (27 percent) or hurricane lamps (29 percent) and only 14 percent own bicycles (see Table 4). These consumer goods are more common in the households in the Central Plateau, Eastern Depression and Bugesera regions, as Table 5 indicates. The Central Plateau is a region of greater economic prosperity and the two latter regions benefit from trade with Tanzania and Rwanda where goods are less expensive.

IV. GETTING: AGRICULTURAL PRODUCTION AND OTHER SOURCES OF RURAL INCOME

1. Principal Economic Activities

While agriculture is the rural population's primary economic activity when subsistence income is accounted, nonfarm sources of income (e.g. business and wage employment) contribute the most to household cash income. This is particularly the case for the richest quartile of households which earn more than 80 percent of cash income "off the farm" (see Figure 1). Nonetheless, in terms of employment agriculture remains the dominant activity for rural household members. Sixty-three percent of the adults (15+ years of age) in this survey indicated agriculture as their main activity. As Table 6 shows, other economic activities such as salaried work, commerce, animal husbandry and fishing employed only about 15 percent of the rural population. There is also little regional differentiation in how people earn their livelihoods: fewer people farm and more have salaried jobs in the Central Plateau; more people farm and a few fish in the Lake Zone (see Table 7). The fact that agriculture is, as the farmers said, of "primordial importance" throughout the country, means that other economic activities -- while they may contribute much to cash income -- are of secondary importance. For example, most farmers do not report commerce in agricultural products as a major activity because they view it as part of the agricultural system.

Men's and women's economic roles overlap to some extent. Although men and women share the farming and commerce, farming is the principal activity of women (70 percent) rather than men (57 percent). All fishermen and the majority of salaried workers (65 percent) and students (66 percent) are men (see Table 8). This division of labor does not vary significantly by region, as Table 8 indicates. More than the average number of women in the Central Plateau are engaged in commerce and are salaried workers. More women than men farm in Bututsi because the men serve in the military and are occupied with animal husbandry, an important activity among the Tutsi.

2. Men, Women and Work: Gender Roles

Both men and women participate in most economic activities that comprise the rural economic system; in general there are few absolutes regarding task specification by gender. There are, however, some specialized activities that are assigned specifically to men or women. The purpose of this section is to provide a general understanding of men's and women's economic roles. The information is derived from group discussions that were held in each commune, rather than on the quantitative survey data. It must be noted that information on the gender division of labor is colored by both sexes' tendency to report the social

Table 6. Principal Rural Economic Activities by Gender and Age

| | All Adults* | All Children | Male Adults | Male Children | Female Adults |
|------------------------|-------------|--------------|-------------|---------------|---------------|
| Agriculture | 63% | 3% | 57% | 3% | 70% |
| Commerce | 2% | 0 | 2% | 0 | 3% |
| Animal Husbandry | 1% | 0 | 1% | 0 | 1% |
| Fishing | <1% | 0 | <1% | 0 | 0 |
| Salaried Work | 12% | 2% | 14% | 1% | 9% |
| Artisan | 2% | 0 | 3% | 0 | 1% |
| Housekeeper | 2% | <1% | 1% | <1% | 3% |
| Student | 8% | 46% | 11% | 47% | 4% |
| None (inactive, child) | 7% | 47% | 7% | 47% | 6% |
| Other | 4% | 2% | 5% | 3% | 3% |

*Adult = 15+ years of age; child = 0-14 years.

Table 7. Principal Rural Economic Activities by Region

| Activity | Central Plateau | Bututsi | Trans. Zone | Lake Zone | East. Depres. | Buge-sera | All Regions |
|------------------|-----------------|---------|-------------|-----------|---------------|-----------|-------------|
| Agriculture | 56% | 65% | 70% | 82% | 75% | 64% | 63% |
| Student | 6% | 15% | 10% | 11% | 6% | 7% | 8% |
| Salaried work | 18% | 4% | 7% | 2% | 3% | 5% | 12% |
| Commerce | 2% | 0 | 2% | 0 | 3% | 6% | 2% |
| Animal husbandry | 1% | 1% | 0 | 0 | 0 | <1% | 1% |
| Artisanry | 3% | 2% | 1% | 0 | <1% | <1% | 2% |
| Fishing | 0 | 0 | 0 | 2% | 0 | 0 | <1% |
| Housekeeping | 2% | 3% | 2% | 0 | 2% | 5% | 2% |
| None | 6% | 7% | 8% | 2% | 8% | 10% | 7% |
| Other | 6% | 3% | <1% | 1% | <1% | 2% | 4% |

Table 8. Principal Rural Economic Activities by Gender and Region

| Activity | Central Plateau | Bututsi | Trans. Zone | Lake Zone | East. Depres. | Buge-sera | All Regions |
|-------------------------|-----------------|---------|-------------|-----------|---------------|-----------|-------------|
| Agriculture | | | | | | | |
| Men | 50% | 49% | 66% | 72% | 70% | 58% | 57% |
| Women | 63% | 78% | 74% | 93% | 80% | 69% | 70% |
| Student | | | | | | | |
| Men | 9% | 18% | 13% | 18% | 7% | 10% | 11% |
| Women | 2% | 11% | 6% | 5% | 5% | 4% | 4% |
| Salaried work | | | | | | | |
| Men | 22% | 9% | 6% | 2% | 6% | 6% | 14% |
| Women | 14% | 1% | 8% | 2% | 1% | 3% | 9% |
| Commerce | | | | | | | |
| Men | 1% | 0 | 3% | 0 | 5% | 5% | 2% |
| Women | 4% | 0 | 1% | 1% | 2% | 7% | 3% |
| Animal Husbandry | | | | | | | |
| Men | 1% | 1% | 0 | 0 | 0 | 1% | 1% |
| Women | 1% | 1% | 0 | 0 | 0 | 0 | 1% |
| Fishing | | | | | | | |
| Men | 0 | 0 | 0 | 3% | 0 | 0 | <1% |
| Women | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Artisanry | | | | | | | |
| Men | 3% | 5% | 2% | 0 | 1% | 1% | 3% |
| Women | 2% | 0 | 0 | 0 | 0 | 0 | 1% |
| None | | | | | | | |
| Men | 7% | 9% | 8% | 3% | 7% | 11% | 7% |
| Women | 5% | 7% | 9% | 0 | 9% | 9% | 6% |
| Other | | | | | | | |
| Men | 7% | 6% | 1% | 2% | 2% | 3% | 5% |
| Women | 5% | 0 | 0 | 0 | 0 | 2% | 3% |

ideal, men as the primary social and economic agents, rather than the reality of rural life. This proclivity makes it difficult to obtain accurate information on women's economic activities, consequently data may be underreported in the survey.

Formal control over resource allocation and household labor is ascribed to men in Burundi. For example, only men possess land rights and buy cattle and traditionally women must receive permission to cut the bananas used to make beer. Yet the public discourse of male authority obscures the complexity and contradiction encased in Burundi gender relations. Women are active participants in household economic decisions, often selecting the type of seed or crops to sow and purchases at the market). As the women pointed out, husbands and wives cooperate to run the household economy; in a stable marriage making decisions and doing the work is expressed through cooperative relations rather than rigid gender roles. Therefore, although men possess formal power to monopolize household resources and limit women's activities, those limits are highly contingent on the particularities of household relationships.

Although both sexes report agriculture as their primary economic activity, it is women who are seen working in the fields, sometimes assisted by adolescent boys. The people interviewed stated that there is no division of agricultural labor by gender which allocates heavier tasks such as clearing fields to men. Women are responsible for all phases of agricultural production, except for managing the cash crops such as coffee, leaving men free to participate in a variety of income generation activities. Both men and women sell agricultural products; men sell cash crops (tobacco, coffee, tea, cotton) and the bananas used to make beer while women primarily sell food crops. Processing and selling agricultural products (sorghum beer, manioc pate) is chiefly women's work. Whereas only women make sorghum beer, 80 percent of banana beer is made and sold by men. According to the survey data only men and children work locally as agricultural wage laborers, although the women interviewed claimed that women were also hired for such work. Basketry, frequently considered women's work, is done by both sexes in Burundi; men make large, plain baskets and women make finely woven, decorated baskets.

Activities that require travel and work outside the colline are a male prerogative. Commerce requiring long-distance travel or transport of large quantities is relegated solely to men since women neither leave home for extended periods of time nor ride bicycles. Small groups of men commonly bicycle from the Btutsi region to Rumonge to buy palm oil, or from Gitaramuka in the northeast to Kirundo in Bugesera to buy beans. They also travel to the commercial centers (Bujumbura, Ngozi, Rumonge) to buy goods for resale (sugar, salt, soap, rice). Men engage in wage labor making roads, digging ditches and herding animals. Single,

young men leave the collines to do short-term and seasonal wage labor: for example, those in Kiganda, the Transitional Zone, go to Bujumbura to work as domestics or to Gitega to work in the coffee factory; in the rainy season they travel north to Bubanza and Cibitoke to perform agricultural wage labor. Salaried jobs for men are rare, even in the communes close to Bujumbura such as Mutimbuzi and Kabezi. Only a few men there reported working as mechanics' assistants, masons' assistants, gardeners and sentinels in the city.

Masonry, construction, carpentry and tailoring are common income generating activities on the colline for men. Male labor is also employed in making adobe bricks and charcoal. The prevalence of ironworkers is extremely low; none of the men reported participation in iron-working activities.

As noted earlier, the utilization of women's labor is predominantly centered on agriculture and concomitant market activities. Women consistently reported income from agricultural products and sorghum beer as their major source of cash. Some women also engage in petty commerce, buying small quantities of palm oil, salt and kerosene to sell locally. Both petty commerce and local markets entail traveling several hours on foot and crossing national borders; for example, women in Bwambarangue frequently go to Tanzania and bring back salt and ndagala fish. Basketry, which is performed primarily for household use, is women's only artisanal activity. In addition to these activities women are responsible for household maintenance: collecting firewood and water, cooking, washing and child care.

Thus, the gender division of labor in rural Burundi is characterized by female control of agricultural and household work and male control of primary cash-generating opportunities. Although women may manage cash crops in a male's absence, men are both free to seek alternative means of remuneration and control the products of household labor. Knowledge of this division of labor can facilitate the creation of future rural development activities. First, because men currently engage in micro-commerce and travel they are interested in expanding their opportunities in the wage labor market through acquisition of carpentry, mechanics, and similar marketable skills. Second, women are interested in improved agricultural technology and entrepreneurial opportunities that do not interfere with food production or require much travel outside the collines.

3. Land Ownership, Sales and Rentals

There are two major types of agricultural land in Burundi: land on the hillside and land in the river valleys, or bottomland. The bottomland is limited in area and valuable because it can be sown in food crops (beans, sweet potatoes,

Table 9. Distribution of Hillside Fields

| Region | Average number of fields | Number of fields owned by % of households: | | | | |
|--------------------|--------------------------|--|-----|-----|-----|-----|
| | | 0 | 1-2 | 3-4 | 5-6 | 7+ |
| Central Plateau | 3.5 | 12% | 33% | 23% | 25% | 7% |
| Bututsi | 5.0 | 0 | 14% | 40% | 24% | 22% |
| Transitional Zone | 3.8 | 10% | 26% | 30% | 27% | 7% |
| Lake Zone | 5.0 | 3% | 26% | 26% | 16% | 29% |
| Eastern Depression | 4.5 | 9% | 26% | 27% | 21% | 17% |
| Bugesera | 3.0 | 18% | 27% | 30% | 20% | 5% |
| All regions | 4.0 | 9% | 25% | 30% | 23% | 13% |

*This is based on preliminary analysis.

Table 10. Distribution of Lowland Fields

| Region | Average number of fields | Number of fields owned by % of households: | | | | | |
|--------------------|--------------------------|--|-----|-----|-----|-----|-----|
| | | 0 | 1 | 2 | 3 | 4 | 5+ |
| Central Plateau | 2.0 | 42% | 12% | 20% | 13% | 2% | 11% |
| Bututsi | 2.8 | 15% | 10% | 22% | 27% | 10% | 16% |
| Transitional Zone | 1.0 | 55% | 12% | 17% | 12% | 3% | 1% |
| Lake Zone | 1.0 | 46% | 23% | 18% | 8% | 3% | 2% |
| Eastern Depression | 1.8 | 31% | 15% | 24% | 14% | 12% | 4% |
| Bugesera | 0.9 | 73% | 10% | 7% | 2% | 2% | 6% |
| All regions | 1.6 | 44% | 13% | 18% | 12% | 5% | 8% |

*This is based on preliminary analysis.

corn) during the dry season. Rural households have an average of four hillside fields and more than one field in the bottomland (see Tables 9 and 10). The farmers in Kinyangurube (Bugesera) reported that land on the hillsides is very limited and they rent fields in Busoni; almost a fifth (18 percent) do not have hillside fields (see Table 9). The farmers in Nyamurenza, in the Eastern Depression, also rent hillside land in Busoni and Muyinga. Fields in the bottomland are owned by just over half of the households (56 percent), and the average number per household is 1.6 (see Table 10). Some farmers in Bugabira (Bugesera) and Mukike (Transitional Zone) have no bottomland at all. The cost of renting-in both types of fields is discussed in Section III.

Sales and rentals of farmland are infrequent. Only thirteen households, or 4 percent of those surveyed, sold and/or rented land during the past year. The combined income for sales plus rentals ranges from 1,450-30,000 FBU; the average is 6,069 FBU.

4. Agricultural Production and Income from Crop Sales

There are three seasons in the agricultural year, of which the second (Impeshi), approximately from February through June, is the most important in terms of crop cultivation and production. Therefore, this season is used as an example of agricultural production and crop sales among rural households. The information summarized in Table 11 shows the variety of crops cultivated among rural households during February-June 1989. Because the table only reflects one season of agricultural production, the percent of households that cultivated cash crops during 1988-1989 is far greater than indicated in the table: 82 percent (278 households) have coffee parcels, 5 percent (17 households) grow tea, 15 percent (50 households) grow tobacco and 9 percent (29 households) grow cotton.

The location of crop sales during the second agricultural season are summarized in Table 12. As the table indicates, the largest percentage of sales occur in local markets. Crop sales are fairly equitably distributed between men and women yet as indicated earlier, most men sell the cash crops: soybeans, tobacco, coffee, tea, cotton and the bananas used to make beer. The local market is where most sales occur (see Table 12). Buyers purchase cash crops at farm gates (on the colline) as well as in the market.

Only a small proportion of rural households sold the staple food crops that were produced during the past agricultural year. Manioc, beans and corn were sold by the largest number of households, and sales of plantain, garden vegetables, manioc, rice and beans generated the highest revenues among the food crops (see Table 13). One-fifth of the households sold manioc during 1988-1989 and earned an average of 904 FBU; 26 percent sold beans and earned an average of 256 FBU; 15 percent sold corn

Table 11. Percent of Households Growing Different Crops in the Second Agricultural Season (February - June, 1989), by Region

| Crop | Central Plateau | Bututsi | East. Depres. | Trans. Zone | Bugesera | Lake Zone | All Regions |
|--------------|-----------------|---------|---------------|-------------|----------|-----------|-------------|
| Bean | 83 | 95 | 97 | 87 | 87 | 93 | 87 |
| Pea | 25 | 80 | 14 | 30 | 12 | 0 | 26 |
| Maize | 47 | 62 | 46 | 47 | 68 | 60 | 50 |
| Manioc | 63 | 23 | 78 | 65 | 68 | 88 | 65 |
| Colocasia | 52 | 67 | 48 | 67 | 37 | 48 | 54 |
| Sw Potato | 58 | 75 | 59 | 70 | 63 | 40 | 61 |
| Peanut | 32 | 5 | 31 | 22 | 32 | 25 | 27 |
| Potato | 20 | 55 | 5 | 27 | 10 | 0 | 20 |
| Sorghum | 35 | 55 | 34 | 28 | 50 | 30 | 35 |
| Soybean | 17 | 2 | 3 | 5 | 3 | 8 | 11 |
| Rice | 13 | 0 | 15 | 3 | 10 | 25 | 11 |
| Eleusine | 15 | 23 | 19 | 14 | 2 | 0 | 13 |
| Wheat | 3 | 33 | 0 | 27 | 0 | 0 | 9 |
| Avocado | 43 | 35 | 39 | 45 | 47 | 38 | 43 |
| Vegetable | 17 | 28 | 20 | 22 | 13 | 35 | 20 |
| Yam | 10 | 0 | 7 | 3 | 17 | 0 | 7 |
| Pigeon Pea | 5 | 0 | 25 | 0 | 0 | 10 | 5 |
| Cook Banana | 70 | 86 | 80 | 78 | 75 | 63 | 73 |
| Beer Banana | 65 | 93 | 71 | 77 | 78 | 95 | 73 |
| Fruit Banana | 47 | 22 | 45 | 52 | 57 | 53 | 47 |
| Sugarcane | 8 | 2 | 10 | 8 | 7 | 3 | 8 |
| Orange | 2 | 3 | 9 | 3 | 7 | 18 | 4 |
| Mango | 15 | 0 | 29 | 18 | 27 | 38 | 19 |
| Papaya | 12 | 2 | 14 | 10 | 20 | 35 | 13 |
| Pineapple | 12 | 12 | 32 | 20 | 32 | 23 | 17 |
| Tobacco | 25 | 7 | 3 | 7 | 3 | 20 | 17 |
| Coffee | 58 | 40 | 53 | 47 | 60 | 30 | 52 |
| Tea | 0 | 0 | 0 | 13 | 2 | 0 | 3 |
| Cotton | 0 | 2 | 7 | 2 | 0 | 43 | 5 |
| Other Crops | 7 | 3 | 5 | 10 | 2 | 18 | 8 |

N=338

Table 12. Location of Crop Sales in the Second Agricultural Season

Percent of sales:

| Crop | In Local Market ² | Outside Markets ³ |
|---------------|------------------------------|------------------------------|
| Beans | 98% | 2% |
| Peas | 100% | 0 |
| Peanuts | 100% | 0 |
| Soybeans | 100% | 0 |
| Manioc | 87% | 13% |
| Colocasia | 84% | 16% |
| Sweet potato | 92% | 8% |
| Potatoes | 78% | 22% |
| Yams | 100% | 0 |
| Corn | 95% | 5% |
| Sorghum | 95% | 5% |
| Rice | 50% | 50% |
| Eleusine | 67% | 33% |
| Wheat | 100% | 0 |
| Avocados | 90% | 10% |
| Vegetables | 86% | 14% |
| Sugarcane | 100% | 0 |
| Mangos | 100% | 0 |
| Pineapples | 71% | 29% |
| Plantains | 87% | 13% |
| Beer bananas | 90% | 10% |
| Fruit bananas | 78% | 22% |
| Tobacco | 56% | 44% |
| Coffee | 58% | 42% |
| Tea | 100% | 0 |
| Cotton | 76% | 24% |

Table 13. Annual Rural Household Income from Sales of Crops

| Crop | Central Plateau | Bututsi | East. Depres. | Trans. Zone | Bugesera | Lake Zone | All Regions |
|--------------|-----------------|-------------|---------------|-------------|-------------|---------------|-------------|
| Bean | 188 | 133 | 248 | 239 | 1103 | 131 | 256 |
| Pea | 33 | 23 | 0 | 292 | 50 | 0 | 84 |
| Maize | 0 | 17 | 24 | 73 | 57 | 485 | 62 |
| Manioc | 563 | 258 | 717 | 968 | 68 | 4120 | 904 |
| Colocasia | 48 | 50 | 25 | 115 | 0 | 134 | 65 |
| Sw Potato | 92 | 15 | 16 | 198 | 2 | 4 | 92 |
| Peanut | 0 | 0 | 347 | 275 | 200 | 125 | 105 |
| Potato | 115 | 132 | 59 | 92 | 0 | 0 | 90 |
| Sorghum | 45 | 1 | 139 | 288 | 984 | 188 | 175 |
| Soybean | 10 | 0 | 0 | 0 | 0 | 25 | 7 |
| Rice | 25 | 0 | 134 | 0 | 0 | 3985 | 351 |
| Eleusine | 30 | 10 | 0 | 0 | 0 | 0 | 16 |
| Wheat | 0 | 0 | 0 | 2 | 0 | 0 | 0 |
| Avocado | 282 | 72 | 153 | 301 | 179 | 20 | 237 |
| Vegetable | 334 | 166 | 145 | 81 | 42 | 1535 | 338 |
| Yam | 8 | 0 | 0 | 0 | 50 | 0 | 8 |
| Pigeon Pea | 0 | 0 | 5 | 0 | 0 | 0 | 0 |
| Cook Banana | 873 | 183 | 497 | 1010 | 820 | 613 | 813 |
| Beer Banana | 62 | 449 | 1506 | 1282 | 450 | 2876 | 699 |
| Fruit Banana | 32 | 15 | 227 | 194 | 343 | 323 | 123 |
| Sugarcane | 33 | 0 | 14 | 0 | 0 | 0 | 18 |
| Orange | 0 | 23 | 10 | 0 | 0 | 176 | 17 |
| Mango | 5 | 0 | 13 | 50 | 14 | 18 | 17 |
| Papaya | 0 | 0 | 5 | 0 | 0 | 25 | 2 |
| Pineapple | 67 | 5 | 6 | 0 | 0 | 78 | 41 |
| Tobacco | 286 | 3 | 119 | 614 | 0 | 1993 | 452 |
| Coffee | 2858 | 1879 | 2290 | 3468 | 4812 | 1594 | 2920 |
| Tea | 0 | 0 | 0 | 88 | 0 | 0 | 19 |
| Cotton | 0 | 0 | 77 | 0 | 0 | 2126 | 181 |
| Other Crops | 17 | 0 | 0 | 0 | 0 | 100 | 17 |
| Total | 6006 | 3434 | 6776 | 9630 | 9174 | 20,674 | 8109 |

N=338

and earned an average of 62 FBU. The farmers in Bugesera reported a good bean harvest in the second season of the year which is reflected in the large proportion of households that sold the crop (32 percent of all rural sales) and their high average income of 10,235 FBU. Most of the manioc was sold by households in the Eastern Depression, Transitional Zone and the Lake Zone; corn was sold mainly by households in the Transitional and Lake Zones. Fewer households in Bututsi sell food crops than households in other regions.

Sales of fruit and vegetable crops were more common among rural households during 1988-1989, as Table 13 shows. About one-quarter of the rural households sold all three types of bananas (plantains, fruit bananas and those for beer). Sales of plantains generated the highest average annual income (813 FBU) among the fruit and vegetables crops, followed by beer bananas (699 FBU) and garden vegetables (338 FBU). Among the cash crops, coffee was sold by the largest number of households, particularly in the Central Plateau (25 percent of all sales) and in Bugesera (23 percent). Tobacco (452 FBU) and coffee (2,920 FBU) generated the largest revenues for rural households, about 9,500 FBU. (Until the data on rice production and income is clarified the figure from the Transitional Zone representing one household is tentative).

These annual data reveal the types of crops that are significant sources of income for rural households and the regional differentiation that exists in agricultural production and sales. The crops that are sold by a large proportion of the households and generate large incomes are manioc, all three types of bananas, beans and garden vegetables. Crops such as peanuts, sorghum, cotton, rice, tobacco and coffee which are regional specialties and thus sold by a smaller proportion of the rural households, also generate large revenues. For example, in the second season of 1989 peanuts were sold by only 8 percent of all the households, mainly in the Eastern Depression (37 percent of all sales) and Bugesera (26 percent), bringing those households an average income of 4-5,000 FBU. Sorghum was sold by only 9 percent of all households, mainly in Bugesera (36 percent of all sales), generating an average household income of 8,094 FBU in that region. These figures represent a substantial income for a small slice of the rural population.

The regional variation in agricultural production reflected by crop sales is indicated in Table 13. Regional specializations in cash crops are clear: tobacco was sold primarily by households in the Lake Zone and Transitional Zone; rice was sold mainly in the Lake Zone; coffee was sold mainly in Bugesera and the Transitional Zone, and cotton was sold almost exclusively by the households in the Lake Zone. Most peanut sales were made by the

households in the Eastern Depression; in contrast, most plantain sales occurred in the Transitional Zone. Data indicates the absence of a specialized regional crop in Bututsi.

The household income from crop sales is not generated evenly throughout the year: the rural averages indicate that one-third is from the first season, half (47 percent) is from the second season and 28 percent is from the third (dry) season. The average annual income for rural households from sales of agricultural products is 24,303 FBU. The lowest household income exists in Bututsi (13,763 FBU); in the other regions it ranges from 21-26,000 FBU. (The figures from the Lake Zone are higher and must be verified).

5. Income from Sales of Processed Agricultural Products and Agricultural Wage Labor

A substantial portion of rural household income is derived from processing agricultural produce and selling the products -- banana beer, manioc pâte -- locally. Most households (66 percent) sold these products and earned an average of 12,869 FBU during the February-June season of 1989 (see Table 14). Banana beer apparently deserves its reputation as an economic and dietary staple in Burundi: 92 percent of all households reported sales of the beer during the five month season. Many households also sold sorghum beer (49 percent), manioc pate (34 percent) and manioc cossettes (23 percent). As noted previously there is a gendered division of labor for beer making. The sale of banana beer is men's work (82 percent of all sales) and occurs mainly on the colline (88 percent of all sales). In contrast, only women make sorghum beer and selling it is chiefly their responsibility (63 percent of all sales); it is also sold mainly on the colline (96 percent). Food products such as processed manioc and ground peanuts are sold in the local market by both sexes.

Agricultural wage labor provides income for approximately 28-37 percent of all households in each season of the year (see Table 16). The proportion is slightly higher in the Central Plateau, Bututsi and Transitional Zone, and slightly lower in the Lake Zone, Eastern Depression and Bugesera. The average annual income from such labor was 72,122 FBU during 1988-1989. The lowest annual income reported is from Bututsi (41,473 FBU) and the highest is from the Central Plateau (in excess of 100,000 FBU; this figure requires verification). Data from the second season, the busiest of the year, reflects that most people who perform agricultural wage labor are men (58 percent) and one-quarter are children (up to fourteen years of age). Only a small proportion (12 percent) of these workers are women. Most wage labor is performed locally; three-quarters of the people worked in fields in their own collines.

Table 14. Income from Processed Agricultural Products in the Second Season

| Region | Percent of households | Average seasonal income ² |
|--------------------|-----------------------|--------------------------------------|
| Central Plateau | 48% | 10,159 |
| Bututsi | 78% | 10,866 |
| Transitional Zone | 58% | 7,136 |
| Lake Zone | 52% | 11,945 |
| Eastern Depression | 63% | 15,655 |
| Bugesera | 73% | 19,598 |
| All regions | 66% | 12,869 |

Table 15. Location of Sales of Processed Agricultural Products in the Second Season

| Product | Percent of sales: | |
|------------------------|------------------------------|------------------------------|
| | In local market ^b | Outside Markets ^c |
| Banana beer | 88% | 12% |
| Sorghum beer | 96% | 4% |
| Manioc cossettes | 94% | 6% |
| Manioc pate | 88% | 12% |
| Ground peanuts | 67% | 33% |
| Palm oil | 100% | 0 |
| Average, all sales: | 89% | 11% |

^aThis is based on preliminary analysis.

^bLocal market sales include on the colline, sales to local peddlars, merchants and stores. Rural Households

^cOutside sales are those outside the colline, usually to institutions such as processing plants.

Table 16. Percent of Rural Households Engaged in Paid Agricultural Labor by Region and Agricultural Season

| Season | Central Plateau | Bututsi | Trans. Zone | Lake Zone | East. Depres. | Buge-sera | All Regions |
|--------------------|-----------------|---------|-------------|-----------|---------------|-----------|-------------|
| Agatasi (Sept/Jan) | 35% | 37% | 40% | 20% | 25% | 25% | 31% |
| Impeshi (Feb/June) | 40% | 45% | 40% | 25% | 36% | 30% | 37% |
| Mu ci (May, Oct) | 30% | 30% | 39% | 27% | 22% | 15% | 28% |

^aThis is based on preliminary analysis.

Table 17. Rural Household Livestock Ownership by Region and Type of Animal

| Species | Central Plateau | Bututsi | Trans. Zone | Lake Zone | East. Depres. | Buge- sera | All Regions |
|----------------------------|-----------------|------------|-------------|------------|---------------|------------|-------------|
| Cattle | | | | | | | |
| average number | .6 | 2.1 | .4 | .5 | .3 | .4 | .7 |
| minimum/maximum | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | 0/20 |
| % hh's owning | 17% | 57% | 18% | 5% | 5% | 10% | 20% |
| Goats | | | | | | | |
| average number | 1.2 | .8 | 1.5 | 1.8 | 1.5 | 1.5 | 1.4 |
| minimum/maximum | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | 0/20 |
| % hh's owning | 43% | 22% | 45% | 22% | 43% | 37% | 38% |
| Sheep | | | | | | | |
| average number | .1 | .7 | .3 | .1 | .2 | .2 | .3 |
| minimum/maximum | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | 0/5 |
| % hh's owning | 10% | 22% | 13% | 1 hh | 10% | 7% | 11% |
| Pigs | | | | | | | |
| average number | .1 | .1 | .2 | .3 | <.1 | 0 | .1 |
| minimum/maximum | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | 0/8 |
| % hh's owning | 5% | 5% | 7% | 2 hhs | 1 hh | 0 | 4% |
| Poultry | | | | | | | |
| average number | 1.4 | 1.4 | 1.7 | 2.3 | 3.5 | 2.2 | 2.1 |
| minimum/maximum | n.a. | n.a. | n.a. | n.a. | n.a. | n.a. | 0/17 |
| % hh's owning | 25% | 35% | 30% | 28% | 48% | 40% | 37% |
| Total Animals | 3.4 | 5.1 | 4.1 | 5.0 | 5.5 | 4.3 | 4.6 |
| Total Minus Poultry | 2.0 | 3.7 | 2.4 | 2.7 | 2.0 | 2.1 | 2.5 |

N=338

6. Livestock Ownership and Sales

Livestock are a secondary component of the rural economic system. The most common household animals are goats and poultry; 38 percent of households own the former and 37 percent of households own the latter (see Table 17). Cattle traditionally are a valuable and prestigious resource owned by the Tutsi; only 20 percent of the households surveyed have cattle, and most of them are in Bututsi. More households in the Bututsi region have cattle and sheep than elsewhere despite the fact that households in the Lake Zone have twice as many animals. The Butusi household owns an average of 2.1 cattle and a total of 3.7 animals (cattle, goats, sheep and pigs); a household in the Lake Zone owns an average of .5 cattle and a total of 2.7 animals (see Table 17).

About one-third of all households reported selling livestock and poultry during 1988-1989. Overall only 14 percent of all households reported selling goats, the most commonly sold animal, and 10 percent sold poultry (see Table 18). Sales of cattle are rare and limited to a few households in each region (see Table 18). The exception to this pattern is Bututsi where about half (47 percent) of the households sold livestock and 27 percent sold cattle. The households in the Lake Zone have the largest herds but only about one-fifth reported sales. Therefore, the income from livestock sales is distributed among a small proportion of the rural households. The income earned by all households through sales of goats during 1988-1989 averaged 912 FBU and through sales of cattle, 2,024 FBU (see Table 19). More than half of all livestock (51 percent) and cattle sales occur on the colline; the remainder of sales occur in local markets (39 percent). Only poultry is more frequently sold in the market than in the farmers' neighborhoods. Transporting livestock to larger markets outside the collines or to regional urban centers that presumably would have better prices is rare. This suggests that animal husbandry in rural areas is oriented toward supplying local needs for food and cash rather than production for Burundi's urban markets.

In general, animal products are not used extensively for sale or household consumption. One-third of the households reported consuming their own animal products in the two weeks preceding the survey, mainly in Bututsi (28 percent of the households in the region) and the Transitional Zone (28 percent). The proportion is lower in all the other regions, 9-14 percent. Eggs and milk are the products usually consumed. Only 2 percent of all households reported selling animal products during the two week period and they sold only eggs to earn an average of 274 FBU. No income was reported from sales of other animal products (meat, skins, butter, milk, honey or manure).

Table 18. Percent of Rural Households Selling Livestock, July 1988 - July 1989

| Region | Cattle | Goats | Sheep | Poultry |
|--------------------|--------|-------|-------|---------|
| Central Plateau | 7% | 12% | <1% | 3% |
| Bututsi | 27% | 7% | 0 | 13% |
| Transitional Zone | 7% | 15% | 3% | 10% |
| Lake Zone | <1% | 8% | <1% | 8% |
| Eastern Depression | <1% | 18% | 0 | 13% |
| Bugesera | <1% | 17% | 0 | 7% |
| All regions | 8% | 14% | 1% | 10% |

N=338

Table 19. Annual Rural Income from Livestock Sales by Region

| Species | Central Plateau | Bututsi | Trans. Zone | Lake Zone | East. Depres. | Buge-sera | All Regions |
|-----------------------|-----------------|---------|-------------|-----------|---------------|-----------|-------------|
| Cattle average income | 2158 | 6125 | 1550 | 462 | 271 | 1000 | 2024 |
| Goats average income | 392 | 375 | 777 | 531 | 637 | 2625 | 912 |
| Pig average income | 67 | 0 | 375 | 769 | 0 | 0 | 167 |

N=338

7. Fishing, Artisanry and Salaried Jobs

Income from fishing, artisanry and salaried jobs contributes very little to rural households. Only twelve households reported fishing as a principal activity; seven in the Lake Zone, three in the Central Plateau and one each in Bugesera and the Eastern Depression. Few households reported income from artisanal activities such as basketry and carpentry during the second season 1989 -- only thirty, or 9 percent. There are two possible explanations for this low figure: a) the farmers said that there are only a few artisans such as carpenters and tailors on each colline and that baskets and mats generally are made for household use rather than for sale; and b) people are occupied with farming in the second season, the busiest of the year, and may have little time for handicrafts. Woodworking generated the highest income reported for handicrafts (30,000 FBU), followed by basketry (5,000 FBU). Both men and women participate in these activities; women tend to weave baskets and sew while men engage in woodworking and carpentry.

Few adults in rural areas have salaried jobs or own their own businesses, such as small stores or repair shops. Only 98 adults, 10 percent of all adult household members, reported having such sources of income. For the most part these activities are men's work: three times as many men as women have businesses or salaried jobs. Private enterprise is more common in Bugesera than in other regions. Permanent, salaried jobs are most prevalent in the Central Plateau where Burundi's urban centers are located (see Table 21). Income from business activities averages approximately 19,000 FBU per month and incomes from salaried jobs range from 15,000-26,000 FBU per month (see Table 23). Furthermore, women's average income for salaried jobs is over 10,000 FBU higher than men's; it is likely that these women are engaged in commerce.

8. Income Levels and Distribution.

The data reveal that rural cash incomes are highly unequal. Table 20 shows that the richest quartile (4) of households earns approximately 80 percent of total income, while the poorest quartile (1) accounts for only two percent. Average annual cash income among the richest quartile of rural households (446,243 FBU) is more than 50 times that of the poorest quartile of households (8,681 FBU) (see Table 22). There are also profound intrahousehold and interregional differentiation in cash incomes (see Table 21). In addition, the data reveal that salaried employment as a percentage of household income is considerably more important for the richest quartile of households than for the poorest quartile (see Table 20). By contrast, agricultural income is more important for the poorest quartile of households (47 percent of total income) than for the richest quartile (6 percent). The data in Tables 20-22 point to the inaccuracy of

relying on aggregated "average" household income figures which do not account for extant differentiation within income quartiles, gender groups, and regions.

Table 20. Rural Household Income Distribution

| Income Quartiles | 1 | 2 | 3 | 4 | All |
|---|------|------|------|------|------|
| Number of Households | 85 | 85 | 85 | 84 | 339 |
| Percent of Total Income | 2% | 5% | 13% | 80% | 100% |
| Percent of which is Agricultural ^a | 47% | 39% | 35% | 6% | 12% |
| Percent of which is Salaried ^b | 0 | 3% | 10% | 67% | 56% |
| Percent of which is Business ^c | 37% | 45% | 45% | 25% | 29% |
| Percent of which is Other | 16% | 13% | 10% | 1% | 3% |
| Total | 100% | 100% | 100% | 100% | 100% |

^aIncludes income from sales of livestock, fruits, vegetables and grains.

^bIncludes income from wage employment.

^cIncludes income from sales of handicrafts and petty trading activities.

Table 21. Rural Household Income by Region and Gender

| Type | Central Plateau | Bututsi | Trans. Zone | Lake Zone | East. Depres. | Bugesera |
|----------------------------|-----------------|---------|-------------|-----------|---------------|----------|
| Agricultural Income | | | | | | |
| Male | 14,836 | 17,725 | 20,120 | 36,744 | 17,217 | 23,590 |
| Female | 8,997 | 5,221 | 17,433 | 56,170 | 3,372 | 3,941 |
| Both | 13,766 | 14,590 | 19,337 | 37,701 | 13,932 | 18,678 |
| Salaried Income | | | | | | |
| Male | 103,224 | 28,364 | 32,627 | 7,500 | 15,467 | 74,294 |
| Female | 194,308 | 17,143 | 68,400 | 15,600 | 32,481 | 28,000 |
| Both | 119,923 | 24,800 | 38,045 | 7,920 | 19,504 | 62,720 |
| Business Income | | | | | | |
| Male | 36,508 | 33,123 | 19,263 | 68,859 | 29,844 | 104,651 |
| Female | 19,476 | 18,789 | 16,568 | 11,040 | 18,746 | 73,997 |
| Both | 33,385 | 28,674 | 38,493 | 63,785 | 27,211 | 96,987 |
| Other Income | | | | | | |
| Male | 5,636 | 4,632 | 4,006 | 1,960 | 6,597 | 1,180 |
| Female | 1,238 | 1,371 | 200 | 0 | 351 | 2,637 |
| Both | 4,829 | 3,727 | 3,305 | 1,764 | 5,115 | 1,545 |
| Total Income | | | | | | |
| Male | 160,204 | 83,843 | 76,016 | 115,062 | 69,125 | 203,715 |
| Female | 224,020 | 42,524 | 102,601 | 82,810 | 54,951 | 108,575 |
| Both | 171,904 | 71,790 | 99,180 | 111,170 | 65,762 | 179,930 |

Table 22. Rural Household Income (FrBu)

| Income Quartiles | 1 | 2 | 3 | 4 | All |
|---------------------------------------|-------|--------|--------|---------|---------|
| Number of Households | 85 | 85 | 85 | 84 | 339 |
| Mean Total Income | 8,681 | 30,111 | 71,203 | 446,243 | 139,060 |
| Of which is Agricultural ^a | 4,106 | 11,630 | 24,806 | 28,766 | 17,328 |
| Of which is Salaried ^b | 0 | 969 | 7,371 | 300,509 | 77,212 |
| Of which is Business ^c | 3,189 | 13,454 | 32,237 | 113,257 | 40,534 |
| Of which is Other | 1,387 | 4,058 | 6,786 | 3,710 | 3,985 |
| Total | 8,681 | 30,111 | 71,203 | 446,243 | 139,060 |

^aIncludes income from sales of livestock, fruits, vegetables and grains.

^bIncludes income from wage employment.

^cIncludes income from sales of handicrafts and petty trading activities.

Table 23. Rural Household Income from Salaried Jobs and Private Businesses, by Gender

| | Salaried jobs, avg.monthly income | Businesses, avg. monthly income |
|--------|--------------------------------------|------------------------------------|
| Male | 15,181 | 19,419 |
| Female | 26,554 | 18,200 |

V. SPENDING: RURAL INVESTMENT IN AGRICULTURAL PRODUCTION AND OTHER ACTIVITIES

1. The Cost of Renting-In and Buying Land

One-fifth of the households (22 percent) reported renting-in hillside fields during 1988-1989 at an average annual cost of 2,711 FBU (see Table 24). In Bugesera, where the farmland is insufficient, one-third of the households rented-in hillside fields at an average annual cost of 3,450 FBU. Fewer households spend money to rent-in bottomland: only 11 percent of the households did so during 1988-1989, at an average cost of 1,454 FBU. A slightly greater number of households in the Central Plateau (17 percent), Transitional Zone (15 percent) and Eastern Depression (18 percent) rented fields in the bottomland during 1988-1989.

Rented land is paid for in cash, with very few exceptions. The farmers said that for hillside land the price is 1-3,000 FBU per field per season, depending on the size of the field. In Nyamurenza (northern Central Plateau) rent for a 20 x 30 meter field is 2-3,000 FBU per season; around the town of Kirundo (Bugesera) it costs 2-3,000 FBU to rent a 30 x 50 meter field for two seasons. In Giteranyi (Bugesera) the farmers reported that the rent for a 40 x 50 meter field is 2,000 FBU. The farmers generally discuss price in terms of how many crops are sown in the field: a field costs 1,000 FBU per crop per season, or 2,000 FBU for the season when two crops, such as corn and beans, are sown. Sharecropping and payment in beer rather than cash for hillside land is reported only in the Transitional Zone (Musigati commune) and the Eastern Depression (Cendajuru). In Musigati the cost of rental is 1,000 FBU per crop per season, or one-third of the crop in payment to the owner of the field. In Cendajuru the farmers said that payment is never in cash but in beer: one or two jars, depending on the size of the field.

The cost of renting bottomland is 500-2,000 FBU per field per season, and only one crop is sown. The highest prices were reported in Bugesera where bottomland is scarce, 1-2,000 FBU per field. Payment in cash is general practice everywhere except in the Eastern Depression (Nyabitsinda and Cendajuru) where the farmers said that rentals are common and paid in beer only. In Nyabitsinda the cost is 20-40 bottles of beer, depending on the size of the field. In Cendajuru it is two jars per field, the equivalent of 1,200 FBU according to the farmers.

Buying land is less common: only 7 percent of the households purchased land during 1988-1989. The maximum expenditures for buying farmland range between 16,000 and 100,000 FBU; the average expenditure is 19,276 FBU.

Table 24. Frequency of Renting-In Hillside Fields

| Region | Number of fields rented, % of households | | |
|-----------------------|--|-----|-----|
| | 0 | 1 | 2 |
| All regions | 78% | 11% | 6% |
| Central Plateau | 85% | 10% | 2% |
| Bututsi | 87% | 8% | 3% |
| Transitional Zone | 70% | 15% | 7% |
| Lake Zone | 83% | 5% | 13% |
| Eastern Depression | 83% | 9% | 3% |
| Bugesera | 67% | 15% | 15% |

Table 25. Distribution of Renting-In Lowland Fields

| Region | Number of fields rented, % of households | | |
|-----------------------|--|-----|----|
| | 0 | 1 | 2 |
| Central Plateau | 83% | 10% | 7% |
| Bututsi | 92% | 3% | 2% |
| Transitional Zone | 85% | 8% | 3% |
| Lake Zone | 95% | 5% | 3% |
| Eastern Depression | 82% | 7% | 9% |
| Bugesera | 98% | 2% | 0 |
| All regions | 89% | 6% | 4% |

2. Expenditures on Agricultural Tools, Chemical Inputs and Labor

Tools and chemical fertilizers are the most frequently purchased items for agricultural production. Almost half (48 percent) of the households bought tools during 1988-1989, at an average expenditure of about 1,500 FBU. Moreover, nineteen percent of the households spent an average of about 1,200 FBU on chemical fertilizers during the same period. Fertilizer generally is used only on cash crops -- coffee, tea, cotton -- and distributed by the parastatal agencies that deduct the cost from the sale price, so this information may represent an indirect expenditure. Few households spend money on other inputs such as manure, insecticide or livestock feed.

Chemical fertilizers and pesticides are available mainly for commercial crops and only in limited quantities. The main sources of these inputs are the parastatal agencies and the communes' agronomists. All of the farmers reported that OCIBU provides free pesticides once or twice a year for the coffee crop but those in several of the communes surveyed do not receive free fertilizer (Nyabitsinda, Eastern Depression; Gitaramuka, Central Plateau; all the communes in Bugesera; Rugombo, Lake Zone; and Cendajuru, Eastern Depression). The farmers in Rugombo (Lake Zone) where cotton is an imposed crop are given the seed and inputs by COGERCO and the value is subtracted from the sale price after the harvest. These farmers also report that BTC, the tobacco parastatal, provides seed and chemical inputs for their tobacco crop and deducts the value after the harvest. The farmers in Mukike (Transitional Zone) grow tea and OTB delivers fertilizer to their colline; they do not know whether or not the cost is deducted from their harvest profits. Farmers characterize the supply of chemical fertilizers for other crops as too expensive and too little, too late. Fertilizer is not sold in the local markets and if it is available through the agronomist at the communal administrative offices it is usually an insufficient amount and arrives too late in the season for application. Above all, the cost of using adequate amounts of fertilizer, sixty francs per kilo in the rural areas, is prohibitive for farmers.

The supply and use of pesticides in the field and in storage is even rarer; farmers are constrained by the prohibitive cost, the limited supplies, the travel time required to obtain pesticides, and the lack of pumps for application. Farmers use pesticides to grow commercial crops because they are provided free of charge but they do not use them on other crops. Most farmers report that insecticides are not only too expensive but ineffective against the pests that attack their crops, including the coffee trees. Pesticide powder for harvests in storage is available in Nyamurenza (Central Plateau) for 50 francs per packet, a cost which exceeds the means of most farmers. The

farmers in Mutimbuzi, near Bujumbura, said that DDT is available at 102 francs per kilo to control harvest losses but they seldom use it. Information on fertilizer and pesticide use in each commune is provided in section five of the report, in the description of the communes surveyed.

Hiring labor to produce food crops is common: almost half (48 percent) of the households did so during the second and busiest agricultural season of 1989 (February-June), spending an average of 3,991 FBu. But investing in labor for the production of cash crops or other purposes is rare, reported by only 7 percent of all households, although they spent the same amount of money, 3,392 FBu. The total average household expenditure for all types of hired labor during the season was 9,700 FBu.

3. Expenditures on Food and Seed in the Second Season

The period of greatest agricultural activity, the February - June season provides information on rural household investment in seed and staple food crops yet the data does not distinguish between the two purposes. Seventy-five percent of the households reported buying beans, a staple food crop, during this season as well as rice (49 percent), plantains (34 percent), peas (29 percent), manioc (26 percent), sweet potatoes (29 percent) and potatoes (29 percent). This indicates that rural households are spending money to provision themselves with basic food crops or the seed to produce them, at least in 1989. The two regions with a disparate data pattern are Bututsi, where more than the average number of households purchase staple crops of almost every type, and the Eastern Depression where a smaller number does. Purchases are made equally by men and women although more purchases of cash crops-- soybeans, potatoes, rice, wheat -- are made by women. The primary source of these commodities is the local market where 74 percent of all purchases are made. The rural household spends an average of 11,830 FBu for staple foods/seed during this five month season.

4. Expenditures on Livestock

Approximately one-third of the households purchased livestock during 1988-1989, of which the greatest percentage was goats (12 percent of rural households) followed by poultry (13 percent). Few households bought cattle -- only 17 or 5 percent -- except in Bututsi where 10 percent did so. It should be noted that people frequently underreport livestock purchases because of the perception that livestock holdings signify material well-being; therefore these figures are not definitive. Although most livestock purchases are made in local markets (44 percent) one-third are made outside the farmers' colline of residence. Cattle are more frequently bought outside the local area than other livestock.

Households that bought a goat during the past year spent an average of 2,697 FBU; those that bought poultry spent an average of 2,123 FBU. The average cost of buying cattle is 24,456 FBU. Little money is invested in maintaining livestock: only about 9 percent of all households bought feed or medicine and their average expenditure was approximately 1,100 FBU. The farmers in all rural areas stated that veterinary care is available from the technician at the commune's administrative office or ISABU centers such as the one in Marwa. The owner purchases medicine and care is provided free of charge.

According to the farmers in Bututsi, the current price of cattle on the local markets is about 30,000 FBU per head. Bulls are worth 25-50,000 FBU, cows cost 30-40,000 FBU and calves less than a year old cost 30,000 FBU. The farmers in Mukike (Transitional Zone) reported prices of 35-40,000 FBU for a bull, 30,000 FBU for a cow and 13,000 FBU for a bull calf.

5. Expenditures on Housing, Education and Medical Care

About half of all rural households reported spending money on construction, education and medical care during 1988-1989 (see Table 26). Construction absorbed the most money, an average of 13,218 FBU for 48 percent of rural households. Durable housing -- cement floors, windows, tile or metal roofing -- is a primary objective of both rural households and a current government campaign. Metal roofing, an expensive and desirable item in rural areas, adds considerably to the cost of housing improvements and probably weighted the average expenditures shown in Table 26. More households (52 percent) spend money on education than construction but the average sum is considerably less, only 3,622 FBU annually. The average expenditure reported for medical care is 1,595 FBU. This figure may be underestimated because individuals tend to only report the cost of major illnesses that, like aggregate expenditures for housing or school fees, are generally incurred only once or twice a year.

6. The Cost of Consumer Goods and Social Occasions

Most of the consumer goods purchased by rural families are practical ones such as agricultural tools, household utensils and furniture (see Table 27). Items such as radios, tape players and watches are luxury goods for the great majority of families. Very few people even purchase bicycles (3 percent), an item of great utility in Burundi. Most households (70 percent) reported buying consumer goods during 1988-1989 and spending an average of 16,685 FBU. A smaller proportion (30 percent) spent money on social occasions such as dowries, births or marriages although the average expenditure is almost the same, 13,415 FBU. Regular annual expenditures include loan repayments, bicycle taxes, and deposits in the rural savings and credit institution (COOPEC).

Table 26. Rural Household Expenditures on Construction,
Education, and Medical Care

| Construction Expenditures | Average Expenditure (BFR) | Percent of Households |
|---|---------------------------|-----------------------|
| Total Cost of Construction, First Building | 12,680.64 | 42% |
| Total Cost of Construction, Second Building | 530.47 | 5% |
| Total Cost of Construction, Third Building | 6.80 | <1% |
| <hr/> | | |
| Total | 13,217.91 | |
| Education Expenditures | | |
| School Fees | 1,666.98 | 52% |
| Uniforms | 632.74 | 38% |
| Supplies | 872.72 | 49% |
| Transportation | 128.70 | 6% |
| Other School Expenses | 320.80 | 22% |
| <hr/> | | |
| Total | 3,621.94 | |
| Medical Care | | |
| Cost of Medical Care, First Person | 1,024.97 | 55% |
| Cost of Medical Care, Second Person | 453.28 | 28% |
| Cost of Medical Care, Third Person | 116.79 | 14% |
| <hr/> | | |
| Total | 1,595.04 | |

n=338

Table 27. Rural Expenditures on Consumer Goods

| Type of Purchase | Average Expenditure (BFR) | Percent of Households |
|----------------------|---------------------------|-----------------------|
| Household Utensils | 571.78 | 25% |
| Furniture | 1,544.14 | 15% |
| Boat | 357.84 | 3% |
| Bicycle | 511.54 | 3% |
| Radio | 422.44 | 7% |
| Tape Player | 563.17 | 4% |
| Watch | 241.86 | 9% |
| Vehicle | 8,628.11 | 1% |
| Other Major Purchase | 972.49 | 12% |
| Total | 13,813.37 | |

N=338

Ninety-one percent of the households spend an average of 24,079 FBU annually on such payments.

7. Consumption Patterns and Expenditures on Food

The dietary staples of rural families are beans, ndagala (dried fish) and several types of carbohydrates: sweet potatoes, manioc, colocasia and plantains. Their most common daily meal is a combination of beans and one carbohydrate; they report that ndagala is eaten less frequently, usually two to four times each week. In many areas the farmers said that they buy a small quantity of ndagala each market day and thus eat it regularly twice a week. Meat is a preferred food but it is expensive and of limited quantity. Because the frequency of meat consumption is directly related to economic resources it is difficult to obtain consistent information on household consumption rates. Data indicate that meat intake fluctuates from once to every three months. The exception is Cendajuru (Eastern Transition) and Bwambarangwe. The former consumes greater quantities of meat due to the limited availability of ndagala (it is imported monthly from Tanzania not Bujumbura). The latter reported eating meat twice a week, as it is available in quantity in the local market. The only people who report eating fresh fish daily, rather than beans, are those in Kabezi and Mutimbuzi, in the Lake Zone. It is interesting that, in contrast, neither fresh fish nor ndagala are reported as staples in the Bugesera region that has two lakes, Cohoha and Rweru. The people there gave several reasons for this: they prefer meat to fish, fresh fish is scarce even near the lakes, the ndagala from Tanzania is expensive, and the supply of ndagala from Bujumbura is limited, often unavailable in the local market for months. Finally, beans are the staple food in the town of Kirundo.

These consumption patterns are reflected in households' weekly food purchases. Dried fish, beans and meat are the most commonly purchased foods; in terms of cost, meat and beans account for the two highest weekly expenditures (see Table 30). The relatively large proportion of households that purchased beans (38 percent) confirms the farmers' reports of a poor harvest this spring. Banana beer is also a staple commodity: beer is second most frequently purchased food -- by 41 percent of all households in a week -- and bananas to make beer account for one of the biggest weekly food expenses (see Table 30). Women in all rural areas claimed they bought very few commercial foods such as sardines, powdered milk or canned tomato sauce because of the prohibitive cost. However, staples such as salt, sugar, palm oil, onions, tomatoes and rice continue to be purchased. As Table 30 indicates, salt and sugar are frequent purchases. Bread, soft drinks, and bottled beer are the commercial foods bought by the largest number of rural households (see Table 31). The average weekly expenditure on staple foods is 1,600 FBU (see Table 30).

Table 28. Rural Expenditures on Social Occasions

| Type of Expense | Average Expenditure (BFR) | Percent of Households |
|-----------------|---------------------------|-----------------------|
| Dowry | 2,233.73 | 9% |
| Birth | 305.06 | 5% |
| Marriage | 1,169.82 | 7% |
| Baptism | 163.88 | 9% |
| Total | 3,872.49 | |

N=338

Table 29. Annual Rural Payments on Services and Taxes

| Type of Expenditure | Average Expenditure (BFR) | Percent of Households |
|--------------------------|---------------------------|-----------------------|
| Political Party Card | 164.12 | 81% |
| Loan Repayments | 4,598.76 | 21% |
| Bicycle | 54.46 | 12% |
| Credit Repayments | 6,377.37 | 9% |
| Land Rental | 401.48 | 12% |
| Fishing Equipment Rental | 2.66 | <1% |
| Car Insurance | 169.23 | <1% |
| Motorbike Insurance | 21.30 | <1% |
| Life Insurance | 0 | 0 |
| Taxes | 168.79 | 7% |
| Authorization Tax | 176.69 | 2% |
| Commercial Tax | 572.34 | 6% |
| Other Lump Payments | 11,371.50 | 21% |
| Total | 24,079.00 | |

N=338

Table 30. Weekly Rural Expenditures on Food

| Food Item | Average Weekly Expenditure (BFR) ¹ | Percent of Households |
|---------------|---|-----------------------|
| Fresh manioc | 35.56 | 15% |
| Dry manioc | 47.51 | 13% |
| Manioc greens | 3.27 | 5% |
| Manioc flour | 61.38 | 18% |
| Manioc pate | 11.27 | 11% |
| Colocasia | 29.94 | 14% |
| Sweet potato | 27.25 | 15% |
| Potatoes | 28.82 | 13% |
| Yams | 1.80 | 1% |
| Rice | 129.91 | 29% |
| Sorghum | 52.28 | 8% |
| Corn | 34.23 | 8% |
| Beans | 253.37 | 38% |
| Peas | 31.64 | 9% |
| Peanuts | 13.79 | 11% |
| Leafy greens | 16.97 | 15% |
| Amaranth | 8.28 | 12% |
| Fruit | 7.88 | 8% |
| Sugarcane | 2.34 | 4% |
| Plantains | 65.89 | 22% |
| Beer bananas | 55.47 | 5% |
| Fruit bananas | 8.34 | 9% |
| Meat | 177.41 | 36% |
| Fish | 129.48 | 59% |
| Milk | 25.27 | 6% |
| Eggs | 9.82 | 6% |
| Salt | 75.58 | 85% |
| Sugar | 66.97 | 26% |
| Peppers | 2.94 | 10% |
| Tobacco | 21.83 | 22% |
| Coffee | 2.23 | 1% |
| Tea | 12.00 | 17% |
| Banana beer | 135.24 | 41% |
| Sorghum beer | 13.20 | 11% |
| Total | 1,599.16 | |

N=338

Some regional variation in consumption patterns is evident. More households in the Eastern Depression purchase meat and fish than those in other regions; the households in Bututsi purchase beans rather than fish or meat. A larger proportion of households in the Central Plateau and Bugesera buy bottled beer than elsewhere, but the average expenditure on this staple is greater among the households in the Lake and Transitional Zones.

The household supplies regularly purchased by rural families are soap, matches, kerosene, petrol and charcoal (see Table 32). Fuel for light and cooking is an inexpensive and primary household need. Few households reported purchasing other supplies such as batteries, medicine or clothes, even on a monthly basis. The average expenditure on household supplies is 720 Fbu per week (see Table 32).

Table 31. Average Rural Monthly Expenditures on Commercial Foods

| Food Item | Average Monthly Expenditure (BFR) ^a | Percent of Households |
|---------------------|--|-----------------------|
| Dry milk (Nido) | 94.44 | 8% |
| Canned tomato sauce | 17.28 | 4% |
| Vegetable oil | 29.41 | 5% |
| Sardines | 2.60 | 1% |
| Bread | 196.10 | 29% |
| Soft drinks | 192.04 | 20% |
| Bottled beer | 607.35 | 26% |
| Cigarettes | 74.32 | 8% |
| Beignets | 28.89 | 7% |
| Cookies | 2.65 | 1% |
| Total | 1,245.08 | |

N=338

^aAmong households making these expenditures.

Table 32. Weekly Rural Expenditures on Household Supplies

| Item | Average Weekly Expenditure (BFR) ^a | Percent of Households |
|--------------|---|-----------------------|
| Soap | 99.91 | 98% |
| Matches | 15.13 | 76% |
| Kerosene | 26.88 | 36% |
| Petrol | 29.01 | 32% |
| Charcoal | 45.21 | 13% |
| Firewood | 17.07 | 6% |
| Candles | 5.01 | 4% |
| Batteries | 36.78 | 14% |
| Clothes | 139.83 | 14% |
| Cloth | 195.21 | 8% |
| Shoes | 65.53 | 5% |
| Metal pots | 20.47 | 3% |
| Baskets | 3.96 | 1% |
| Cooking pots | 19.26 | 11% |
| Total | 719.26 | |

N=338

^aAmong households making these expenditures.

Section VI. THE RURAL HOUSEHOLD: ANNUAL INCOME AND EXPENDITURES

1. Survey Results: Annual Household Income and Expenditures

The principal sources of rural household cash income are presented in Tables 20-22. It is important to note that these tables solely represent "cash" income and do not account, for example, for "subsistence" agricultural production -- which is substantial. The figures in these tables are based on data from the entire rural sample of 338 households and indicate the significance of off-farm contributions to the total income of rural households. The percent of rural households reporting income from off-farm sources is shown in Table 20. All these figures represent cash income; the farmers everywhere said that barter no longer exists. Data on income from the sales of processed agricultural products (banana beer, manioc flour) and artisanal activities was collected for one season and used to calculate annual income. (In order to improve the accuracy of self-reported information on these two topics, people were questioned about the five-month season preceding the survey. The seasonal averages were divided by five to obtain monthly incomes and then multiplied by twelve to obtain annual income). Cash expenditures on food and supplies were collected for the week preceding the interview, also to obtain accurate responses, and multiplied by fifty-two to obtain annual expenditures.

The principal sources of rural household income are business or salaried jobs and wage labor (see Table 20). Business generally implies some form of commerce such as a small store or an individual trader; salaried jobs include service in the military, teaching, or work as a local administrator in the commune. Annual income from these sources was calculated from the monthly incomes reported in the survey. Although business and salaried jobs account for 85 percent of annual household income, they are only a major source of income in about one-quarter of all households. As noted earlier, cash incomes are highly skewed, with households of the lowest quartile earning an average of only \$54 per year (\$1=160 FBU), while those in the highest income quartile earn more than \$2,500 annually. Average household income in the rural sample is \$869 per year.

Wage labor is the second major source of household income. This includes off-farm labor such as working for the commune (building roads, digging drainage ditches) or local projects (herding, brick making) for 105 FBU per day, as well as agricultural wage labor that may pay as little as 70 FBU daily. Different types of agricultural income -- renting land, sales of crops and processed agricultural products -- account for 16 percent of income. Figure 1, presented earlier in the report,

demonstrates the relative importance of the different sources of income reported by rural households. Until the data are analyzed at the household level it is not possible to determine more precisely the range of household incomes or how rural households combine different activities for their economic survival.

Food, drink and supplies such as fuel account for more than half of a rural household's annual expenditures (see Tables 30-32). Staple foods alone -- beans, dried fish, salt, sugar and banana beer -- account for almost one-third of that expense. The household's investment in agricultural production -- renting land, buying inputs, hiring labor -- represents 18 percent of its annual expenditures. The combined costs of consumer goods, social expenses such as marriage, and regular expenditures such as loan repayments comprise another 17 percent of household expenditures. The remaining 11 percent of household expenditures are on housing, education and medical care. The general pattern of rural household expenditures is shown in Figure 2, and on an annual basis is summarized in Table 33.

The difference in the cost of hiring-in labor and the income generated by wage labor shown in Figure 1 requires some explanation. The income from wage labor (72,122 FBu) is based on the farmers' reports of their annual earnings; the annual cost of hiring labor (23,280 FBu) is calculated from their reports of expenditures in the second and busiest agricultural season of the year, February-June. According to these figures wage labor generates 18 percent of the household's income but accounts for only 7 percent of its expenditures. It is unlikely that calculating the annual cost of labor based on data from the busiest season of the year would underestimate that cost. Comparing income and expenditures on labor during that season, for which data is available, indicates the same discrepancy: the average household income from wage labor during February - June is 20,740 FBu and the average expenditure during that period is 9,700 FBu. It is possible that this difference is due to the fact that 28 of the wage laborers work outside their colline of residence during that season, earning money that they do not invest in their own agricultural production.

Regional differentiation in the sources and amounts of household income are evident. The highest annual household income is reported in the Central Plateau. Wage labor and income from business/salaried jobs generate more than the average amount of household income in that region, where many of Burundi's secondary urban centers are located (Gitega, Ngozi, Kayanza, Muyinga). Bugesera also reports a higher than average household income, accumulated through land sales and rentals, sales of processed agricultural products and livestock as well as business/salaried jobs. Business in Bugesera also includes considerable trade with its two neighboring countries, Rwanda and

Table 33. Estimated Total Annual Rural Household Expenditures

| Item | Annual Expense | Percent of Total |
|--|------------------|------------------|
| Staple/Main Foods | 83,156.32 | 42.5% |
| Regular Fees/Taxes | 24,079.00 | 12.3% |
| Social Expenditures | 3,872.49 | 1.9% |
| Medical Costs | 1,595.04 | 0.8% |
| Education Costs | 3,621.94 | 1.8% |
| Commercial Foods | 14,940.96 | 7.6% |
| Household Supplies (Includes Clothing Expenses) | 37,401.52 | 19.0% |
| Consumer Goods | 13,813.37 | 7.0% |
| Housing Costs | 13,217.91 | 6.7% |
| <hr/> Total | <hr/> 195,698.55 | |

Tanzania, as the section below on rural travel demonstrates. The average incomes of households in the Lake Zone approximate the rural average of \$869 per year. (These figures do not include data from the region's urban center, Bujumbura). Cash crops (rice, cotton, tobacco) are an important source of income in the Lake Zone. Lower annual incomes are reported from the other three regions -- the Eastern Depression, the Transitional Zone and Bututsi. Overall the households in these three regions earn less money from the two major sources of rural income, wage labor and business/salaried jobs, than elsewhere and have no particular regional compensations.

The regional patterns of household expenditure follow the same order when ranked in terms of annual expenditures as they do when ranked in terms of income. There is little regional differentiation in household investment in agricultural production (land, inputs, food/seed supplies), except in hiring labor. Hiring labor represents a greater expenditure in Bututsi than elsewhere, and a smaller expenditure than average in the Central Plateau and the Eastern Depression. The households in the Central Plateau, with the highest incomes, report higher than average expenditures in several categories: construction, consumer goods, social occasions, regular payments. The households in the Lake Zone spend considerably less on construction, education and medical care than those in the rest of the country, and considerably more on staple foods. Some expenditures in Bugesera, those that are lower (consumer goods, social occasions, regular payments) and those that are higher (commercial food, household supplies) differ considerably from the rural averages and must be verified.

Comparing income and expenditures points to extant regional differentiation in household economic status. Annual household expenditures in the Transitional Zone, Bututsi and the Eastern Depression are approximately one-quarter lower than the rural average and one-third lower than those in the Central Plateau, indicating that the households in these three regions spend less cash and are likely less economically prosperous than residents of the Central Plateau. (Expenditures are a better indicator of cash resources because they are more accurately reported than incomes, which people frequently underestimate). The ratios of household income to expenditure in each region are interesting. The households in the Central Plateau and Bugesera earn more money than they spend, while those in the other regions spend more money than they earn. Because it is likely that incomes in the other four regions (Bututsi, Transitional Zone, Lake Zone, and Eastern Depression) were underreported, their expenditures are actually a more illuminating indicator of household income and economic status.

Several observations regarding rural household economy can be derived from this national- and regional-level data. Although

Burundi's rural population is predominantly characterized as subsistence farmers, this research shows that salaried jobs and small enterprises contribute significantly to household income for part of the population. Small enterprises include a variety of small-scale, entrepreneurial activities usually related to commerce. Off-farm wage labor is the second major contributor to household revenues, followed by agricultural production and related activities. Rural households have developed a diversified income base, to which agriculture makes an important but not solitary contribution. The survey results indicate that rural households invest only about one-fifth of their cash revenues in agricultural production and animal husbandry, underlining the observation that the rural population is not economically autonomous but linked to the wider economic system to acquire the food and consumer goods necessary for daily life. Both the quantitative and qualitative data from the survey indicate that these diverse income-earning strategies occur in a national rural economy that is generally quite homogeneous; regional specializations do exist, in terms of the relative importance of revenue sources, but absolute differences -- for example, a region in which industrial wage labor is a major source of income -- apparently do not.

2. A Brief Comparison of USAID Survey Results and Previous Research on Household Economy

Previous research on rural and urban household economy in Burundi facilitates a comparative analysis with the data in this report. However, the primary problem with existing literature, in terms of providing a coherent understanding of household economy, is that the research has been performed by a variety of agencies with disparate objectives, using different methodologies and working in different regions. A second problem is that previous research, to a great extent, has been focused on urban areas. Comparative data for Burundi as a whole, particularly from rural households, is unique to this survey. The purpose of this section is to compare current data with existing literature in order to examine household economy from a broader perspective and highlight areas in need of further analysis. In most cases, direct comparison of data from previous studies is limited due to the variety of methodologies and the lack of categorical standardization (salaries, non food expenditures, agricultural inputs).

Overall, this survey indicates higher incomes and expenditures for rural households as well as a wider diversity of income earning and spending strategies than previous studies. It is likely that this survey is both more accurate and comprehensive, having interviewed a large sample of households about a substantial number of income and expenditure categories.

A preliminary report on household budget and consumption is available from SNES (Service National des Etudes et Statistiques) based on data collected in 1987-88 from four communes in the province of Bujumbura. It is a primary reference, providing both current and clear data (averages) from 120 households. Household incomes were expected to be relatively high in this province but the SNES figures are slightly lower than those from the SARSA/USAID survey. This is due to the fact that the SNES survey collected data on a more narrow range of income and expenditure categories. For example, SNES reports annual nonagricultural income (salaries, artisanry, commerce, other) as 47,413 FBu (\$296); the SARSA/USAID figure is almost three times as high, 121,731 FBu (\$761) (see Table 22). SNES reports an annual household income of 126,541 FBu (\$791). This survey reports an average rural income of 139,060 FBu (\$869), but if the substantial income from business and salaried jobs is subtracted, then average cash income declines drastically to around 21,313 FBu (\$133) per annum. In other words, the figure for average rural income (139,060) is misleading for most households, due to the disproportionate salaried/business earnings by the richest income quartile (see Table 22). The salaried/wage activities are not significant for the other three income quartiles. Salaried income among the lowest income quartile, for example, does not even exist, and averages only 969 FBu (\$6) per year among the second income quartile; whereas for the richest quartile, annual salaried income accounts for over 300,500 FBu (\$1878) per household. Stated otherwise, when calculated for the lowest three income quartiles, (omitting the richest income quartile), rural averages for salaried income (FBu 77,212) and business income (FBu 40,534) are several times lower (FBu 2,780 and FBu 16,293, respectively). This reflects structural disparity in rural incomes between the richest quartile (4) and the other three income groups.

In terms of agricultural versus nonagricultural incomes, SNES reports that 41 percent of household income is generated from agriculture and 59 percent from non-agricultural activities (SNES 1989). The SARSA/USAID data, on the other hand, show that on average only 12 percent of household cash income is agricultural, while the remaining 88 percent is non-agricultural (see Table 20). However, the SARSA/USAID data reveal a similar pattern to the SNES study when we only examine income from Income Quartiles I-III (see Table 20). In this case 40.3 percent of income is agricultural and 59.6 percent nonagricultural (compare with SNES: 41 percent agricultural; 59 percent nonagricultural). More definitive figures only can be obtained by analyzing the data at the household level; as noted above, SARSA/USAID's annual figure is based on a household with income from all sources which represents a maximum.

The SARSA/USAID survey also reports higher annual household expenditures than SNES, probably because data was collected for

more types of expenses. SNES reports an annual expenditure of 20,246 FBU (\$127) on seed, agricultural and fishing equipment and other household supplies such as fuel (SNES 1989). The equivalent figure from the SARSA/USAID survey is 81,795 FBU (\$511), which is only 25 percent of a household's total annual expenditures. [This figure is the sum of land rental (hillside, bottomland), agricultural tools, chemical fertilizer, seed, food and household supplies]. Further comparison is not possible because SNES does not have data on other types of expenditures reported by rural households in the SARSA/USAID survey. A conservative estimate of annual expenditures, based on the categories reported by half of the households in this survey, is 305,522 FBU, or \$1,910 (this figure is the sum of the categories labor, seed, construction, education, medical care, consumer goods, regular payments, food and household supplies). Preliminary data from this survey thus show that household expenditures are larger and far more diverse than previous research indicates.

Preliminary results from the SARSA/USAID survey, including qualitative data, indicate that rural households engage in a variety of income-earning strategies. Other studies report less diversity in household economic activities and lower incomes, probably because more of their data is from government agencies and less is from household interviews. In contrast to the findings of USAID's survey, the World Bank reports that only 7 percent of rural households' income is from nonagricultural activities and only 8 percent is from salaried work (Banque Mondiale 1987). Their figures for annual income also are low, ranging from \$223 - \$742 (Banque Mondiale 1987). Hill's data (from the Ministere du Travail, 1983-87) shows that 86 percent of rural households are engaged only in farming and earn an average annual income of \$556 (Hill et al. 1988). Those who are engaged in supplementary activities such as modern crafts or trade earn substantially more, up to \$1,231 annually, but that is only about 6 percent of all households (Hill et al. 1988). Which activities comprise "farming" are not defined by Hill, but the SARSA/USAID survey shows that nonagricultural activities such as wage labor and commerce are vital sources of income.

With the exception of the SNES survey, the studies reviewed above rely on national statistics and data collected by government agencies such as the Ministere du Travail. These data do not reflect the range of economic strategies developed by rural households to earn their livelihoods, and consequently probably underestimate both incomes and expenditures. Because the SARSA study collected data on the full range of economic activities, it represents a more accurate assessment of the complexity and dynamics of household income and expenditure patterns than previous research.

VII. RURAL LINKS WITH URBAN AND FOREIGN ECONOMIES

1. Rural Travel and Trade

The rural population is not always down on the farm: people from 65% of the households surveyed reported traveling during the past year. Most of them (42 percent) traveled to another commune; a few traveled to Burundi's borders (4 percent) (see Table 34). Regional urban centers and Bujumbura are their most frequent destinations, as people seek work, engage in commerce and pay social visits. Commerce is a major reason for travel to the borders, as individual entrepreneurs transport goods across borders and through Burundi. The following section examines rural travel patterns and identifies the urban centers that are important to the rural population.

a. Absent Household Members (Migrants)

As noted earlier, rural migrants leave their homes to study (22 percent), seek salaried jobs (21 percent) and farm (20 percent). It is principally men who travel to engage in these activities; women travel to visit, housekeep or market their artisanal goods (see Table 35). The capital city of Bujumbura is the primary destination for household members from all regions of Burundi, and Rumonge is the second most popular destination (see Table 34). Thirty-seven percent of all absentees are reported to be in Bujumbura and 19 percent are in Rumonge. One common motivation for travel to Rumonge is to purchase two dietary staples, palm oil and dried fish (ndagala), for resale in other regions. Most of the households reporting absent members are in the Bututsi, Eastern Depression and Central Plateau regions; one third of all absentees are from Bututsi alone. Two rationales are given for the relatively high migration rate from Bututsi: many men from the area serve in the military, traditionally a Tutsi occupation, and the area's poor agricultural resources compel people to seek other venues of accumulation.

The location of absent household members is a clear indication of the importance of regional urban centers other than Bujumbura. Thirty-eight percent of all the migrants in the Central Plateau are in urban centers in that same region: Karuzi (20 percent), Gitega (6 percent), Cankuzo (6 percent) and Ruyigi (6 percent). The migrants from Bututsi travel outside their small region to the towns of Rumonge and Bururi (30 percent), and to Makamba (10 percent). Those from the Transitional Zone move to the two major commercial centers in their own region, Bubanza (31 percent) and Muramvya (15 percent). The cities of Cibitoke, Muramvya, Rumonge and Bururi attract 62 percent of the migrants from the nearby Lake Zone, and there are more migrants from the Eastern Depression in Rumonge (38 percent) than there are in Bujumbura (28 percent) (see Table 34). The migrants from

Table 34. Location of Absent Rural Household Members

| Present location | Region of origin: | | | | | | All Regions |
|--|-------------------|---------|-------------|-----------|---------------|-----------|-------------|
| | Central Plateau | Bututsi | Trans. Zone | Lake Zone | East. Depres. | Buge-sera | |
| Bujumbura | 38% | 39% | 46% | 38% | 28% | 33% | 37% |
| Cibitoke | | 3% | | 12% | | | 2% |
| Bubanza | | | 31% | | | | 4% |
| Muramvya | | | 15% | 25% | | | 4% |
| Rumonge/Bururi/ | | | | | | | |
| Matana | | 30% | | 25% | 38% | | 19% |
| Makamba | | 10% | | | 14% | | 6% |
| Rutana | | 5% | | | | | 2% |
| Gitega | 6% | 3% | | | 5% | | 3% |
| Ngozi | 6% | 5% | | | | 22% | 6% |
| Muyinga | | | | | | 11% | 2% |
| Ruyigi | 6% | 3% | | | 5% | | 3% |
| Cankuzo | 6% | | | | | | <1% |
| Karuzi | 20% | | | | | | 3% |
| Kayanza | | | | | | | 0 |
| Kirundo | 6% | | | | 5% | 28% | 6% |
| Tanzania | 6% | | | | | | <1% |
| Rwanda | | | | | | 6% | <1% |
| Zaire | | 2% | | | 5% | | 2% |
| Other African country | | | 8% | | | | <1% |
| USSR | 6% | | | | | | <1% |
| Percent of all migrants from each region | 14% | 34% | 11% | 7% | 18% | 16% | |

Table 35. Reasons for Travel to Another Commune, by Gender and Region

| Reason | Region of origin: | | | | | | All Regions |
|--------------|-------------------|---------|-------------|-----------|---------------|-----------|-------------|
| | Central Plateau | Bututsi | Trans. Zone | Lake Zone | East. Depres. | Buge-sera | |
| Work | | | | | | | |
| Men | 83% ² | 80% | 50% | 67% | 33% | 56% | 70% |
| Women | 17% | 20% | 21% | 11% | 0 | 22% | 13% |
| Visit | | | | | | | |
| Men | 80% | 86% | 67% | 75% | 55% | 100% | 62% |
| Women | 10% | 14% | 0 | 25% | 18% | 0 | 17% |
| Commerce | | | | | | | |
| Men | 40% | 50% | 50% | 72% | 70% | 50% | 67% |
| Women | 60% | 0 | 0 | 14% | 10% | 0 | 18% |
| Medical care | | | | | | | |
| Men | 100% | 20% | 67% | 50% | 0 | 100% | 57% |
| Women | 0 | 20% | 0 | 50% | 0 | 0 | 14% |
| Study | | | | | | | |
| Men | 0 | 0 | 100% | 0 | 0 | 0 | 50% |
| Women | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Farm | | | | | | | |
| Men | 0 | 0 | 100% | 0 | 0 | 0 | 67% |
| Women | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Other | | | | | | | |
| Men | 0 | 20% | 100% | 50% | 0 | 100% | 57% |
| Women | 0 | 20% | 0 | 50% | 0 | 0 | 14% |

Bugesera are in Kirundo (28 percent), the region's primary urban center, and in two other regional centers: Ngozi (22 percent) and Muyinga (11 percent). Thus, each region has more than one major commercial center that attracts rural migrants, apart from the primary urban/commercial centers of Bujumbura and Rumonge.

b. Rural Travel to Other Communes During 1988-1989

Almost half of all households (42 percent) reported that a household member traveled to another commune during the past year. The majority of these household members are the male heads of household (65 percent), followed by children (17 percent) and women (15 percent). Most of this travel is to Ngozi (34 percent), Bujumbura (25 percent) and Rumonge (11 percent); Gitega and Bubanza are less frequented destinations.

The pattern of travel indicates the importance of three major commercial centers in Burundi and the importance of secondary urban/commercial centers in each region for the rural population. Ngozi is the travelers' primary urban destination as 77 percent of all travelers in the Lake Zone go there to engage in commerce. This phenomenon is interesting because the four communes surveyed in the Lake Zone (Rugombo, Mutimbuzi, Kabezi and Nyanza-Lac) are much closer to Bujumbura than Ngozi. One explanation is that the travelers from communes on the western edge of Burundi, along the lake and the border with Zaire, sell regional products and/or products purchased in Bujumbura in the central market of Ngozi. Bujumbura is, predictably, the second most important travel destination for the rural population, receiving one-quarter of all travelers, and Rumonge/Bururi is third, with only 11 percent of all travelers.

The secondary urban centers of regional importance are easily identified. Gitega and Karuzi are the major destinations for travelers in the Central Plateau region; Rumonge/Bururi and Gitega for those from Bututsi; Bubanza in the Transitional Zone; Rumonge/Bururi and Makamba for those in the Eastern Depression; Kirundo and Ngozi for those from Bugesera.

There is also a clear pattern of which household members travel and for what reasons. The majority of rural travelers are adult males (65 percent); far fewer women (15 percent) or children (17 percent) reported traveling outside their communes of residence during 1988-1989. These figures are consistent in all regions except Bututsi where fewer men (50 percent) and more children (29 percent) travel. (The category 'other' consists of domestics whose travel is related to work for the household). Men travel in order to work, make social visits, engage in commerce and seek medical care (see Table 35). It is interesting to note that men cite medical care as a reason for travel more frequently than women do. Women travel mainly for commerce and

to make social visits, and children travel to study and farm. Only in the Central Plateau do more women report traveling to engage in commerce than men (see Table 35).

The predominant motivations for travel are work (39 percent), social visits (30 percent) and commerce (14 percent). The regional differences in reasons for traveling are presented in Table 35. Work is the primary reason for travel in Bugesera (62 percent) and the Transitional Zone (44 percent) in comparison to the other regions (39 percent) (see Table 35). The people in the Central Plateau travel to make social visits (45 percent) and engage in commerce (23 percent). Those in Bututsi seek medical care and land to cultivate outside their region. Commerce is the major motivation for travel for the population in the Lake Zone (76 percent) as well as in the Eastern Depression (42 percent).

c. Rural Travel Abroad During 1988-1989 and Trade Across Burundi's Borders

Only twelve people reported traveling to the countries or communes on Burundi's borders during 1988-1989. The latter includes some communes that are close to but not on the border (Kirundo, Rutana, Ruyigi). The only people who reported traveling abroad during 1988-1989 are from the Bugesera region in the north that borders on Rwanda; three went to Rwanda and one to Tanzania. It is also the people from Bugesera who traveled to two communes on the border, Cibitoke (one) and Muyinga (one).

The information summarized in Table 34 indicates that few people travel to the border areas or neighboring countries, whether they live near them or not, except for the population in Bugesera. However, it is likely that people underreported travel near and across Burundi's borders and their activities there, certainly commerce, because they are illegal. Contraband from neighboring countries -- that is, small quantities of consumer goods brought into Burundi by individual entrepreneurs without customs clearance -- supply the urban markets and support the vendors. Some information about how this system works was obtained during the survey: for example, contraband originates in Tanzania, is transported through Cankuzo and to Gitega and reaches the Bujumbura market on the commuter buses that leave Gitega between three and five in the morning, avoiding the police that do not start work until seven. Certainly part of the rural economy has developed a system to evade customs regulations, transport goods across the borders, and supply the rural and urban markets, but that remains the subject of another study.

Men comprise 85 percent of the travelers to the border, and their motivations are to make social visits, engage in commerce and work. In Bugesera, half of the people who traveled to engage in commerce were women. In the group discussion in Bugabira commune in Bugesera, on the border with Rwanda, the farmers

reported that they frequently go to Rwanda to buy consumer goods that are less expensive there such as bicycles, metal roofing, clothes and soap. (According to the farmers bicycles cost 38,000 francs in Burundi versus 30,000 francs in Rwanda, plus the possible cost of 4,000 FBU in duty). Farmers also migrate to Rwanda for short periods to work as agricultural wage laborers due to the availability of work and the stronger Rwandan franc. The possibility of problems with border officials or being compelled to pay duty on consumer goods bought in Rwanda does not deter trade across the border; the farmers claim that the risk of getting caught crossing the border is worth the money they save.

The farmers in Giteranyi, another commune surveyed in Bugesera, were frank about their trade with Rwanda and Tanzania. It is four hours' walk to Rwanda and there are no buses. They buy bicycles, clothes, soap and metal roofing there; porters are hired to transport the roofing back to Giteranyi. The customs officials can be avoided and the difference in prices makes the trip worthwhile: metal roofing is 300 francs cheaper per sheet in Rwanda and bicycles can be bought for 18,000 francs. The market in Tanzania is only two hours' walk and the prices there are advantageous. Both men and women go to sell manioc, sweet potatoes and corn -- which sells for ten francs more per kilo in Tanzania than in Burundi. They buy dried fish (ndagala), fresh fish and hoes; the latter are 250 francs less expensive across the border.

In Cendajuru, a commune in the Eastern Depression neighboring Tanzania, the farmers were evasive about their trade across the border, saying that it has become difficult recently as the government has made an effort to enforce customs regulations. It is about three hours' walk to the market on the border where they can purchase consumer goods and staple foods at better prices: bicycles, radios, hoes, metal pots, machetes, beans, corn, dried fish (ndagala) and salt. They reported that they do not bring agricultural products to sell because the same crops are produced there but that information is questionable.

Information on trade with Zaire from the farmers in Rugombo, in the northern Lake Zone is limited. They cross the river mainly to visit and engage in commerce. Plastic shoes are 150 francs less expensive in Zaire (300 vs 450 francs) as are clothes, but there is a customs limit of one article per person. The farmers maintain that the Zairoise merchants profit by selling their rice, milk, potatoes and plantains in the local Burundi markets; the only advantage for the consumers is the lower price of the plantains from Zaire.

VIII. THE FARMERS' VIEW: RURAL LIFE AND PRIORITIES FOR DEVELOPMENT

1. The Farmers' Priorities for Rural Development

What have been the effects of the liberalization of government policy in recent years on rural life? It is important to examine this question in order to evaluate the potential impact of anticipated changes in national-level policies on rural households, the great majority of Burundi's population. This survey provided the opportunity for asking that question to farmers themselves, by querrying about the changes that have transpired in Burundi and the changes they hope to see implemented. In every commune the first and most salient response to this question was a long silence, indicating that not much has changed in people's lives recently, for better or for worse. In contrast, everyone voiced numerous ideas and definite priorities for rural development. The farmers' assessment of progress and suggestions on how to improve the conditions of rural life are summarized in this section.

The responses from men and women regarding the changes in rural life are both positive and negative. The two improvements most frequently reported are that: a) transportation (bus service) is now less costly and easier, since travel permits are no longer required; and b) there are more schools in the rural areas. The eradication of the sales tax on agricultural products is also perceived as beneficial and, according to the farmers, taxes on sales of banana beer and cattle should also be removed. Two improvements in the market system were also praised: the increased availability of consumer goods and the growth of small rural markets outside the regional urban centers. For example, the farmers in Nyabitsinda and Cendajuru (Eastern Depression) and in Gitaramuka (Central Plateau) widely reported that the amount of goods in the local markets -- agricultural tools, clothes, shoes -- has improved in the past year. Finally, a few individuals also noted the following as beneficial: the termination of obligatory money saving in CADEBU and the government subsidy of medical care with its 500 Fbu insurance card.

What has not changed over time is the relationship between the value of the farmers' agricultural products and labor, which remains low, and the cost of living, that rises steadily. The cost of staple foods and consumer goods (salt, tools, cloth) that farmers buy increases each year. Farmers frequently do not have access to a number of basic goods because of their high cost and limited availability. Building durable houses is a priority everywhere but people consistently reported that construction materials (metal roofing, cement) are scarce and expensive. There is a short list of essential goods that people need to improve the quality of their lives but cannot afford: bicycles,

good clothes, shoes and good tools. There is a longer list of goods that people can afford but that are difficult to find in rural markets: sandals, radios, mattresses and specialized tools for carpentry, cooking, and agriculture. In general, the farmers view the negative aspects of rural life as the developments the government planned --dispensaries, road improvements, piped water-- but failed to implement.

The farmers' priorities for development reflect the paucity of services available in rural areas. First, the construction of durable housing -- cement floors, metal or tile roofs -- is on the top of most farmers' lists. The need for potable water, mills, cooperatives (stores) and a COOPEC (rural savings and credit agency) is next, and usually voiced by women; men want paved roads to facilitate commerce, medical clinics and schools. The men, hoping to earn money outside the agricultural sector, voice a need for training in technical skills such as carpentry and mechanics --skills that would facilitate employment in the urban labor market. And, as agriculture is their economic base, both men and women expressed the need for improving production with improved seed, technical assistance, chemical fertilizers and commercial crops that they can market to the urban population.

In addition to the household interviews conducted in this survey, informal group discussions were held in most communes to collect qualitative data on a variety of topics. These groups consisted of both men and women and were open to all who wished to participate, ranging from ten to thirty people. In this context it was possible to address questions to both men and women, explore regional differences in rural economies, query on the problems of rural life. The information below is summarized by region and provides a background for the quantitative survey data.

2. The Central Plateau

In the regions of Buyenzi, Kirimiro, Eweru, and Buyogoma, located in the Central Plateau of Burundi, the communes surveyed were Kigamba, Nyamurenza, Gitaramuka, and Giheta. Agriculture is the major economic activity in these communes with some residents also involved in commerce, animal husbandry, artisanry, and wage labor.

a. Agricultural Production

Nearly every household in this area farms. The major food crops of these regions are beans, colocasia, sorghum, cassava, corn, potatoes, sweet potatoes, plantains, bananas and peanuts. Rice, tobacco, soybeans, cabbage, peas, pineapples and wheat are raised in some of the communes. Coffee is uniformly the major cash crop. Banana and sorghum beer are also sources of cash.

Beans, colocasia, sweet potatoes, cassava and plantains form the daily diet; ndagala (dried fish) and meat are eaten less frequently.

Harvests were varied in the Central Plateau during 1988-1989. Excess rain damaged the bean and peanut crops in Nyamurenza and Giheta, the potato crop in Gitaramuka, and the bean, cassava and sorghum crops in Kigamba. Other crops, especially bananas and colocasia, benefited from the heavy rains. Land is frequently rented in these communes. Highland parcels cost 2-3,000 FBU francs depending on the size; swampland, usually rented out in smaller parcels, costs 3-500 FBU. Harvests are stored in sacks, skins, and baskets in people's homes to keep them dry and to avoid theft.

Improved corn seed is available in Gitaramuka and Kigamba. Although the new seed is productive, it works well only with adequate amounts of manure which is not available to most farmers. As a result many continue to use the traditional seed variety. Fertilizer for the coffee crop is available in Kigamba once a year without cost; insecticides are provided for coffee throughout the area. New soybean and rice seed is used by Gitaramuka farmers; in Nyamurenza, farmers find new seed too expensive for use. Due to the high cost of fertilizer, the soil in Nyamurenza is enriched with coffee hulls.

b. Animal Husbandry

Goats, sheep and cattle are the animals most commonly raised in this region. There are also pigs raised in Nyamurenza. Animal husbandry is negligible in Giheta due to the lack of pasture land. Veterinary care is provided in many of the communes, including free goat vaccinations in Nyamurenza.

c. Secondary Economic Activities

Selling agricultural products and reselling staples purchased in regional urban centers are the most common income generating activities. Sorghum beer, banana beer, and baskets are frequently fabricated and sold. Men commonly work as temporary agricultural wage laborers; women work for two to three months at a time as domestics. In addition, each commune has some carpenters, masons, construction workers and tailors.

d. Prices, Credit, and Marketing Resources

The price of ndagala and petrol is invariable in the area. The prices of other staples differ by 3-50 FBU or up to 42 percent. COOPECS (credit unions) are located in Gitaramuka, Nyamurenza and in Murayi which serves Giheta. There is a cooperative at Kigamba; the residents of Giheta use the cooperative at Murayi. There are shops in Nyamurenza (1),

Gitaramuka (2) and Giheta (3). Residents of Kigamba use the markets of Kigamba, Mugeru, and Cankuzo. The markets of Birambi, Kiremba, and Ngozi serve Nyamurenza. Gitaramuka residents shop at Buhiga, Marenza and Bugenyuzi while the people of Giheta use Bitara and Buba markets.

e. Felt Needs

The most commonly expressed needs in the communes surveyed were improved housing, transportation and potable water. In addition, the residents of Gitaramuka, Kigamba, and Nyamurenza requested local medical services. Cooperatives for baskets and agricultural products were desired in Gitaramuka. The people of both Gitaramuka and Nyamurenza would like local mills. Canals to drain the swamplands, thereby expanding the useable farm land, are desired in Kigamba and Nyamurenza. The farmers in Kigamba also would like more accessible schools and a program to control lice and chiggers. General complaints were stated concerning the high price of consumer goods and general satisfaction expressed with the lower taxes on agricultural products.

f. Summary

The residents of the Central Plateau are primarily agriculturalists, with direct sales from agricultural products and the reselling of staples creating the income for consumer goods. In addition, animal husbandry, artisanry and wage labor supplement the income of some residents. Support comes primarily from the parastatal coffee company, commune agronomists and veterinary agents. The complaints and requests of the population are related to improving their agricultural productivity, their ability to market their agricultural products, and their basic living conditions. They have witnessed progress over the last few years in these areas and believe that additional agricultural support as well as improved housing, roads and medical care, will significantly ameliorate their working and living conditions.

3. Bututsi Region

The Bututsi Region surveyed along the southern plateau of Burundi includes the regional urban center of Matana and the communes of Songa, Riyansoro, Buraza, and Rutovu. Agriculture is the major economic activity of this region although animal husbandry is also common. Military service employs a high percentage of men from this region. In addition, some of the population engage in commerce, artisanry and wage labor.

a. Agricultural Production

Even those residents with stores and other work activities in Matana cultivate fields in this region. The major food crops include beans, sweet potatoes, corn, colocasia and sorghum.

Plantains, beer bananas, cassava, peas, wheat, potatoes and eleusine also are commonly grown. Coffee is the major cash crop. Beans and sweet potatoes form the daily diet. Cassava, colocasia and plantains also are dietary staples. Ndagala (dried fish) is eaten a few times per month depending on affordability and availability. Frequently purchased foods include salt, sugar, hot peppers, onions and palm oil. In Matana, bread, powdered milk, sardines and cheese are also consumed.

Excess rain was a problem for some crops in all of these communes. The bean crop suffered throughout the region. In addition, potatoes rotted in Songa, corn and sorghum were hurt in Riyansoro, most crops suffered in Buraza, and peas and sorghum were damaged in Rutova. Bananas generally benefited from the heavy rains. The farmers reported better production of cabbage in Songa and corn in Buraza due to the rain. Soil erosion was also reported as a result of heavier than usual rain.

Farmers store their corn and sorghum harvests in outside granaries; the other harvests are kept in sacks or baskets inside their homes. In Songa and Buraza, major problems with insects were reported. The available insecticides were not effective. Matana residents are able to purchase insecticides from the local agronomist but only one pump is available in the town. Fertilizer is also sold in Matana through a local project and occasionally through the cooperative.

b. Animal Husbandry

Cattle are plentiful in the region with the exception of Buraza. Goats and sheep are also common. As there is only one veterinarian in the region, adequate animal health care is difficult to obtain. The farmers who raise livestock in Rutovu are able to get veterinary assistance at ISABU (the national agricultural institute) in Marwa.

c. Secondary Activities

Selling agricultural products is the most common income generating activity in the region. Staples are also purchased in bulk and resold for a profit. Banana and sorghum beer are produced for sale as are the mats and baskets women make. Artisanry work such as masonry, carpentry, tailoring, brick-making and ironwork is common. Many men from this region also serve in the military. Some of the people work as domestics, teachers, charcoal makers, and peat extractors at the Matana Onatour factory.

d. Prices, Credit, and Marketing Resources

There are COOPECS (credit unions) in Riyansoro and Buraza. Members receive credit for farming needs, animal husbandry,

commerce and construction. In the other communes credit is available only through friends. Both Matana and Songa have cooperatives. The cooperative of Matana purchases: a) corn and beans locally and resells them for a profit; b) staples and animal medicines in bulk and sells them to cooperative and community members; and c) cottonseed refuse to sell as animal feed. There are two cooperatives in Songa. At the produce cooperative the members raise pigs; at the commerce cooperative members buy staples in bulk in larger towns and resell them locally. Matana is a town of 17 small shops and 4 larger stores. Residents supplement the local open market with the market of Ryeza. There are three shops located in Songa. The markets used by Songa shoppers include Pumeza, Manyone, Bururi, and Mutana. Riyansoro has one shop and its residents frequent the Gishubi and Mutana markets. Neither Buraza nor Rutovu have shops. Buraza shoppers go to Mahonda, Bukirasas, and Gishubi whereas Rutovu shoppers use the Gakwendi, Matana, and local Rutovu markets.

e. Felt Needs

Residents throughout the region complained about the high prices of staples and the high taxes on commerce. The people of Matana expressed interest in: a) starting a potato project and a credit union; and b) receiving assistance to raise pigs and cattle, and to build houses. The population of Songa would also like a credit union and assistance in home construction. They also requested a tile making center. Potable water, construction materials, chemical fertilizers and a mill were reported as needs in Rutovu. The improvements of the last few years: roads, transportation, schools and health care were appreciated by the people of this region. In addition, new crops have been introduced in Matana, there is a mill in Songa, and a government project to make roof tiles in Rutova.

f. Summary

The people of the Bututsi region rely primarily on agriculture to earn a living and most also raise livestock. Direct sales from agricultural products provide needed income. Some of the population also engages in commerce, artisanry and wage labor. Many of the men join the military. This region expressed a need for improved housing, agricultural and livestock production. In addition, credit unions were requested by those communes without such a resource. Over the last few years the region has experienced improvements in transportation, education and health care but has suffered from heavy rains causing soil erosion and crop damage. With support for their agriculture and animal husbandry, and lower taxes and prices, the people believe that they can continue to improve their livelihoods and living conditions.

4. The Transitional Zone

In the regions of Mugamba and Mumirwa, located in the Transitional Zone of Burundi, the communes of Mukike, Musigati, and Kiganda were surveyed. These communes are primarily agriculturally based yet animal husbandry, small commerce, artisanry and wage labor are also of economic importance. Fish culture has recently been established in this region.

a. Agricultural Production

Agriculture is the principal economic activity of this region. Corn, beans and sweet potatoes are staple food crops in all three communes. In addition peas are grown in Mukike and Musigati and bananas (fruit, beer and plantain), colocasia and cassava are grown in Musigati and Kiganda. Mukike farmers also cultivate wheat, potatoes, eleusine and squash while Musigati farmers grow cabbage and peanuts. Coffee is the major cash crop of Musigati and Kiganda; tea is the cash crop in Mukike. Beans are a dietary staple in all three communes. In Mukike they are supplemented with corn, wheat and squash. Cassava pate, colocasia, plantain and sweet potato are the other daily foods of Musigati; the latter three foods are also staples in Kiganda. Ndagala (dried fish) is eaten in all three communes depending on availability and affordability. Meat is eaten occasionally as well.

Only highland fields are cultivated in Mukike while both highland and swampland parcels are farmed in the other communes. Land can be rented in Musigati for 1,000 FBU per crop per season or one third of the crop grown given in kind. In Kiganda land is rented for 1,000 francs per year. Harvests are stored in outside granaries as well as in people's homes in Mukike. In Kiganda storage is in skins in homes. Harvests were poor for the pea and millet crops in Mukike and for the pea and bean crops in Kiganda this past year. The banana and colocasia crops benefited from the heavy rains in Kiganda.

The farmers in Mukike use manure on their food crops and chemical fertilizer on tea. The Burundi tea parastatal agency provides and delivers the fertilizer. The farmers in these communes generally save their seed each year for sowing the next season. If their harvest does not produce enough to provide for the next season, they buy seed in the local market. They also can buy new seed varieties that are being tested by the local agronomist. Several new wheat varieties have been tried. The farmers found that with fertilizer the new varieties outproduce traditional varieties, but without fertilizer or without first following the field, the traditional varieties produce more. The new potato varieties did not significantly increase harvests. Insects have been a problem in this commune, especially in peas and stored harvests. The farmers reported that the "product"

provided by the agronomist to control insects was ineffective. No fertilizers or insecticides are available in Musigati. Bean seed is saved each year or improved seed from Kirundo can be purchased in the Bubanza market. In 1984 a project in Bubanza provided improved bean seed which outproduced the traditional variety in the swamplands but not on the highlands. The harvest was saved for sowing and is now mixed in with the traditional seed. The improved seed is sometimes available in the market at a higher price than the local variety. However, the difference in production is not enough to justify a trip to the Bubanza market. Moreover, the traditional seed stores better. The Bubanza project also provided improved corn seed which cost less than the local type. The harvest did not improve, however, and because the seed saved for the following season did not keep, the farmers have gone back to the traditional variety. Fertilizer is provided to Kiganda farmers at the commune office but the farmers reported that it is expensive and unavailable when most needed.

b. Animal Husbandry

Sheep and goats are the most commonly raised livestock in this area. Cattle and pigs are also raised by some of the farmers. Fish culture is beginning in Musigati. Nearby veterinary care is available in all of the communes.

c. Secondary Economic Activities

Selling agricultural products is the most prevalent income generating activity in the area. Beer is produced from sorghum in all of the communes and from bananas in Musigati and Kiganda and sold. Some of the population is engaged in artisanry such as basketmaking, masonry, carpentry and tailoring. Single people occasionally work in Bujumbura as domestics or guards, or in Gitega at the coffee factory. Seasonal agricultural wage labor is performed by men in all of the communes. In Mukike the men also work on the roads for daily wages.

d. Prices, Credit, and Marketing Resources

Formal credit is offered through a COOPEC in Kiganda. There are two cooperatives in Kiganda that sell consumer goods such as salt, rice, cloth and blankets. There are shops in Mukike (1) and Kiganda (2). The markets used by Mukike residents include Mayuyu, Rwibaga, and Kasenyi. The people of Musigati supplement their local market with the markets of Kivyuka and Ciya. Kiganda shoppers commute to Gatabo, Kabemena, Gitega, and Bujumbura.

e. Felt Needs

Agricultural support is reported as the greatest need in these communes. In Mukike the people requested fertilizer and improved seed for beans, corn, wheat and potatoes. Increased

production of beans, corn, cassava and sorghum is desired by Musigati farmers. More fertilizer and improved topsoil were requested in Kiganda. Improved roads are needed in both Musigati and Kiganda and potable water is needed in Mukike and Kiganda. A cooperative and credit union are wanted in Mukike while an outside market for the furniture they produce would benefit Musigati. Improved health care, training in trades such as masonry and carpentry, and livestock support were requested in Kiganda. When asked what improvements they had experienced over the last few years, people commonly mentioned the eradication of food taxes, the elimination of travel papers and the increase in consumer goods available at local markets. Mukike residents are also pleased to have a local school and money from their tea crop. Schools are also more accessible in Musigati and roof tiles are now available. Improvements in Kiganda include increased access to cash through sales of coffee and new crops such as strawberries and rice.

f. Summary

Agriculture is the economic mainstay in the Transitional Zone. Other activities such as animal husbandry, commerce, artisanry and wage labor supplement farming and the sales of farm products. The needs of this population are primarily related to improving their agricultural productivity. Increased soil fertility, improved seed, better roads and cooperatives would enhance their living and working conditions. The introduction of cash crops has made cash more readily available although residents find their profits insufficient for the high cost of staples.

5. The Lake Zone

The Imbo region surveyed along the west coast of Burundi included the communes of Rugombo, Mutimbuzi, and Kabezi. Rugombo is located along the border of Zaire while the later two communes are situated adjacent to the capital city of Bujumbura. Agriculture, followed by animal husbandry, are the principal economic activities of the three communes. The residents also engage in wage labor and artisanry. Moreover, the people of Rugombo benefit from the resources of neighboring Zaire.

a. Agricultural Production

Agriculture is the population's primary occupation. Mutimbuzi is chiefly a lowlands area while Rugombo and Kabezi are highlands with some swampland available. The staple food crops are cassava, beans, corn, colocasia, peas, tomatoes, plantains, beer bananas, peanuts, sweet potatoes and sorghum. Rice and beer banana are grown for cash in Mutimbuzi; coffee, cotton, and bananas are the main cash crops in Rugombo; coffee and a small amount of cotton are grown for cash in Kabezi. Cassava pâte,

beans and fish are the dietary staples. Plantains, peanuts, colocasia and occasionally meat are eaten. Ndagala (dried fish), salt and oil are commonly purchased for consumption. Rice is purchased in Rugombo and Kabezi, and grown in Mutimbuzi.

Excessive rain was a problem in the three communes during 1988-1989, especially for the beans, plantains, cotton and cassava in the lowlands. The coffee, corn, bananas, and cassava on the highlands benefited from the unusual amount of rain. In Mutimbuzi the water was one and half feet high in the fields during the second season, forcing farmers to wait until the dry season to cultivate. Wind damage to the bananas has been a problem in Kabezi.

Harvests are stored in sacks placed on rocks inside the house. The rocks keep the sacks off the ground and protect the harvest from moisture. In Mutimbuzi farmers treat their harvest in storage with a chemical purchased in Bujumbura; the farmers of Rugombo report a need for more insecticide.

Fertilizers and insecticides are available primarily through the parastatal companies. COGERCO provides fertilizer and insecticides for the cotton crops in Rugombo and Kabezi. The cost is deducted from the value of the harvest sales. The company withdrew their support of cotton production in Mutimbuzi. In Rugombo fertilizer is available at no cost for tobacco and insecticides are provided free for tobacco and coffee.

b. Animal Husbandry

Goats are reported as the most common animal raised in Rugombo, followed by sheep and pigs. Few people own cattle but those that do have large herds. Goats, sheep, chickens, ducks and pigs are raised in Mutimbuzi. The cattle which graze in this region come from Bubanza. In Kabezi, sheep are the most common animal; goats and chickens are owned by many and are rare. Veterinary care is provided in Cibitoke as well as by project Imbo Nord for the animals in Rugombo and by veterinary agents on the commune of Kabezi. Fish culture was started by a Peace Corps volunteer two and one half years ago in Rugombo; 20% of the families now have a pond. Fish culture is just beginning in Mutimbuzi.

c. Secondary Economic Activities

Sales of agricultural products, especially colocasia, cassava, corn, beans, tomatoes, bananas, coffee and cotton are common in these communes. The men of Mutimbuzi also sell milk, which they obtain by caring for outsiders' cattle. The women craft and sell mats and baskets and resell products such as palm oil, salt and soap to earn money. The men frequently do agricultural work for wages (120 FBu per day was reported in

Rugombo) or work in the commune as masons, carpenters, auto mechanics or tailors. In Kabezi the men said they often work in Bujumbura as gardeners, guards, masons, agricultural laborers, merchants and fishermen. They claimed that they do not work at their jobs in Bujumbura more than three months a year. Single people from Rugombo work in Bujumbura as domestics.

d. Prices, Credit and Marketing resources

The price of salt, fish, and petrol is invariable in the three communes. Items such as palm oil, rice, matches, kerosene, and hoes, however, vary in price by as much as 60% among these communes. No formal credit is available in the commune although informal credit is extended among friends. Members of all three communes expressed a strong interest in having a local COOPEC, a cooperative for savings and loans. Two cooperatives are available to the farmers of Rugombo. Produce is sold at about the same price as in the market but members receive part of the cooperative's profit at the end of year. There are four shops located in the commune and nearby markets at Cibitoke and Rugerere. Neither Mutimbuzi nor Kabezi have shops although Kabezi peddlers sometimes buy in bulk at Bujumbura and resell in the local market. The Mutimbuzi residents frequently commute to markets in Bujumbura and Buringa while the markets of Gitaza and Rugembe supplement the local Kabezi market.

e. Felt Needs

In Rugombo people said that the prices of consumer goods continue to rise while their salaries remain the same. They would like to receive higher prices for their agricultural products so that they can afford consumer goods. Improved housing and flood control measures were also requested. The progress they have seen in the last few years includes lowered beer tax and improved transportation. Crop losses due to floods, insects, hippopotamus and cattle damage have resulted in smaller harvests and a greater need to purchase food in Mutimbuzi. The people in Mutimbuzi reported no improvements in the commune over the last few years. They requested a dike to prevent flooding, and seedlings for oil palms. The positive changes noted in Kabuzi included higher prices for coffee and consumers goods and the availability of potable water and nearby schools. They still hope to obtain improved housing, better roads, electricity and technical training.

f. Summary

The residents in these three communes all earn their living from agriculture. They perform wage labor to supplement their income for nonagricultural staples and to purchase food and seed in case of poor harvests. Their expressed needs are to improve their agricultural productivity and their basic living

conditions. At this time the support they receive comes primarily from parastatal organizations and the communes' agronomist and veterinary agents who provide some insecticide and animal care. Yet the people believe that their living conditions will improve with additional agricultural support, and improved roads and housing.

6. The Eastern Depression

The communes surveyed in the Mosso and Buragane Regions included Nyabitsinda and Cendajura. Located in the Eastern Depression of Burundi, these communes nearly border Tanzania. Like the preceding regions, agriculture is the major economic activity followed by animal husbandry, commerce, artisanry and wage labor.

a. Agricultural Production

Beans, sorghum, cassava, plantains, fruit and beer bananas, sweet potatoes, corn, peanuts, colocasia, eleusine and tobacco are the major food crops in these communes. In addition, rice and garden vegetables are grown in Nyabitsinda, and pigeon peas and pineapples are grown in Cendajuru. Coffee is the principal cash crop in both communes. Cassava, beans, and plantains comprise the daily diet. Ndagala (dried fish) is eaten weekly in Nyabitsinda and monthly in Cendajuru. Meat is eaten rarely in Nyabitsinda; more often in Cendajuru.

Harvests varied during 1988-1989 due to heavy rains. Bananas, colocasia, peanuts and cassava benefited from the rain whereas beans and sorghum suffered. Most farmers in both locations have both highland and swampland fields. The fields are frequently rented for payment in beer rather than cash. Most harvests are stored in sacks or baskets in people's homes. Crops such as sorghum, peanuts, eleusine, and corn are often stored in granaries. Storage losses due to insects and rats are reported in Nyabitsinda though no poisons are used to control pests. Insecticides are used in Cendajuru although they are only available in limited quantities.

Improved seed for soybeans, beans, corn and garden vegetables is available in Nyabitsinda. This seed tends to outproduce local varieties with average rainfall, but underproduce with heavy rains. In general farmers use traditional varieties. Nine years ago improved seed was introduced in Cendajuru; its production was variable and it is no longer available. No chemical fertilizers are used in Nyabitsinda. In Cendajuru fertilizers are available but expensive, so farmers usually do not use them. Insecticides are provided free for coffee crops on both communes. In addition, insecticide was provided to farmers in Cendajuru free of cost in 1989 to control problems with cabbage crops.

b. Animal Husbandry

Chickens, goats, sheep and a small number of cattle are raised in both communes. In addition, some pigs are raised in Nyabitsinda. Although care is available locally in Cendajuru, Nyabitsinda farmers must take their animals to Ruyigi for veterinary care.

c. Secondary Economic Activities

Farmers in this region sell agricultural products and resell staples purchased in larger towns to generate cash. In addition, sorghum and banana beer, mats and baskets are fabricated and sold. Residents of Cendajuru also work locally as masons and carpenters, and migrate to larger towns to work as soldiers, cooks and agricultural wage laborers.

d. Prices, Credit, and Marketing Resources

The price of sugar, bottled beer, soap, and matches is variable in the area. The prices of other staples differ by 50% in the two communes. Neither commune has a formal credit system although informal credit is extended between friends in Nyabitsinda. Staples are available at a cooperative in Cendajuru. The people of Nyabitsinda do their marketing in Nyagasonga, Nyagahonda, and Rugaragara. Residents of Cendajuru either use the one local shop and market or travel to Twinkwavu to meet their needs.

e. Felt Needs

Nyabitsinda residents reported an improvement in agricultural production, a tax decrease, and easier travel during the last few years. They indicated a need for potable water, a local dispensary, a mill, better housing and improved bean and corn seed. In Cendajuru people were pleased with the addition of the new water sources, road, and mill, and favorably impressed with the reforestation efforts and the heightened attention on the coffee crop. They indicated a need for training in modern agricultural techniques, new vegetable and soybean seeds, a source of credit for housing improvements, salaried work for the local men and education on fish culture. In both communes people stated that more consumer products are now available locally.

f. Summary

The residents of the Eastern Depression area are principally farmers. Additional income is generated primarily through the sale of agricultural products. Some people engage in small commercial enterprise, artisanry and wage labor. Animal husbandry is a common activity to supplement agricultural earnings. The needs of the population are to improve their

agricultural productivity and basic living conditions. Over the last few years they have witnessed progress in these areas and believe that with the provision of agricultural support and training, improved housing, health care and water their working and living conditions will improve.

7. The Bugesera Region

The Bugesera region surveyed in northern Burundi includes the communes of Bugabira, Giteranyi, Bwambarangwe, and Kinyanguruba and the regional urban center of Kirundo. This region also depends primarily on agriculture with animal husbandry, wage labor and commerce supplementing the incomes of the population. Kirundo is a town of approximately 450 households in which a local government project, Project Kirundo, builds houses and roads and teaches farmers fish farming.

a. Agricultural Production

The major crops grown for food in this region are beans, sweet potatoes, sorghum, cassava, avocados, colocasia, peanuts, plantains, bananas (beer and fruit) and potatoes. Corn, peas, rice and squash are grown in some of the communes. Coffee is the principal cash crop with tobacco grown as well in Bugabira. Beans, cassava, plantains and sweet potatoes comprise the daily diet. Ndaqala (dried fish) and meat are eaten whenever possible; they are expensive and not always available. Fresh fish from Lake Cohoha is eaten in Kirundo when affordable. Other food items commonly purchased include flour, salt, sugar, palm oil, canned tomatoes, powdered milk, rice and onions.

Harvests were good in Bwambarangwe and Kirundo during 1988-1989. Excess rain in Bugabira was harmful for the bean, corn, and sorghum crops, in Giteranyi for bean and peanuts, and in Kinyanguruba for coffee, bean, cassava, bananas and sorghum. However, this rain was profitable for the bananas, corn and cassava in Bugabira and colocasia in Kinyanguruba. The farmers in these two communes complained of topsoil erosion, stating that few people have sufficient land to permit the soil regeneration of a fallow season. Also, a poor harvest in 1989 failed to provide adequate plant material for compost. Highland fields are frequently rented throughout the region (1,000--3,000 FBu/parcel); in Giteranyi, swampland is divided equally among the farmers.

Harvests are stored in sacks of skins in the house. Insecticides commonly are used on the harvests in Bugabira and Kirundo. The farmers in Giteranyi discontinued insecticide use after being informed about the dangers and replaced them with traditional products such as dust, ash and hot pepper. No insecticides are used in the storage of harvests in either Bwambarangwe and Kinyangurube.

New varieties of sorghum, corn, and bean are available in Bugabira. Farmers were given the improved seed which they repaid in the same quantity after the harvest. However, few reported using the improved seed. In Giteranyi, new soybean, sorghum and corn seed is available at half the price of traditional seed from a cooperative that gets the seed from Project Muyinga. The farmers reported that the bean seed does not store well and turns to powder. Likewise, production from the other improved seed was inadequate so most farmers returned to the traditional varieties. Ten years ago farmers in Bwambarangwe received new seed for bean, soybeans and corn. They have been cultivating these crops and saving the seed each year since then. The new bean seed available in Kinyangurube was damaged by hail and consequently most of the farmers prefer to use the traditional varieties. In Kirunso the farmers also use local varieties, and save seed from their harvests or purchase new ones in the local market. Fertilizer use is limited to Bwambaragwe where the parastatal coffee company provides it at no cost once a year. Insecticides are used in Giteranyi and Kinyangurube where they are distributed twice a year and in Bwambaragwe and Kirundo where the coffee parastatal company distributes them once a year. Project Kirundo also provides free insecticides for use on sweet potatoes, beans and corn.

b. Animal Husbandry

Goats, sheep, and chickens are the most common animals in these communes; only a few families raise cattle. In Kirundo animal husbandry is limited to five families. Veterinary care is provided in each commune and at Project Kirundo.

c. Secondary Economic Activities

Selling agricultural products and reselling staples purchased in larger towns are the most prevalent income generating activities. Products such as sorghum, cassava, beans, peanuts and beer are sold to merchants. Sugar, salt, cement, flour, oil, hoes and clothes are purchased and resold at a profit. In addition, many men migrate to Rwanda or Tanzania for agricultural wage labor a few months per year. In Kirundo the men reported that they prefer leaving the country for this work so that their family and friends do not see them doing menial labor. A few men reported working as masons, carpenters and fishermen in Bugabira and Kinyangurube.

d. Prices, Credit and Marketing Resources

The price of ndagala fish, soap and matches is invariable in the region. Items such as salt, oil, rice, kerosene and petrol vary by as much as 50% in price in different parts of the region. The only credit available is with CODEBU (the parastatal savings and loan institution) in the urban center of Kirundo. Members of

the communes indicated an interest in having a local COOPEC, a savings and loan cooperative. The only cooperative for staples is in Kirundo, although the residents stated that the items available are very limited. There are no local shops in Bugabira, there are two in Giteranyi and Kinyargurube, and there are several in the local administrative center of Bwambarangwe. Bugabira residents frequently commute to Nyarungzi and Marembo markets; Giteranyi residents shop in Giteranyi, Muruzu, and Tanzania. People from Bwambarangwe shop in Mukenke, Bunoro, and Bugurora. Kinyargurube shoppers go to Nyarungzi and Bugurora, while people from Kinyargurube supplement their shopping in Nyarungzi and Marembo.

e. Felt Needs

Residents indicated a need for fertilizer, a local coffee processing plant, improved seed, better housing, cooperatives for products and savings /loans, potable water and local dispensaries. Bugabira and Bwambarangwe residents stated that the local transport system is poor while the transportation in Biteranyi and Kinyangurube has improved during recent years. Similarly Bugabira is in need of additional schools whereas Kinyangurube has had more schools built in recent years. Many people complained of the higher prices of consumer items but said they benefited from the elimination of taxes on food products. In Kirundo people expressed satisfaction with the attention paid to the rural population and with the freedom permitted by the latest government to discuss politics.

f. Summary

The residents of the Bugesera region are primarily farmers, with direct sales of agricultural products and the reselling of staples generating the necessary income for non-produce items. A few people augment their income through wage labor. The main support the residents receive is from the parastatal coffee company and Project Kirundo. Residents are most interested in increasing agricultural productivity, facilitating access to a coffee processing plant, and improving housing, transportation, education and health care.

IX. A BRIEF REVIEW OF URBAN HOUSEHOLD ECONOMY

A summary of the preliminary data derived from the urban survey in Bujumbura is presented in this section of the report. The following synopsis is brief in comparison to the preceding section because the urban data set is considerably smaller and fewer agricultural questions were asked of urban residents. The urban sample consists of 108 households, twelve from each of the nine neighborhoods (quartiers) in the capital city of Bujumbura. Comparative tables on rural and urban household characteristics are presented in Annex III.

1. The Urban Household: Household Demography, Education, Housing and Material Possessions.

Most of the urban families surveyed are Burundi nationals and long-term residents of Bujumbura. Sixty-seven percent of the household heads interviewed are Burundi, 16 percent are Zairoise and 14 percent are Rwandan. Three-quarters (73 percent) were born in Bujumbura or have lived in the city for more than ten years; only 6 percent have lived there for a year or less. Those who have moved to the capital during the past few years have come mainly from Muramvya (27 percent), Bururi (24 percent) and Gitega (9 percent).

The size of households in the city is only slightly larger than those in the rural areas at 6.4 members per household. This larger household size may reflect the pervasive overcrowding of urban zones, where housing costs and shortages far exceed those in rural areas. The average urban household consists of two adult males (15 years of age and older), 2.1 adult females, 1.1 male children (0-14 years of age) and 1.2 female children (see Table 35). Seventy-one percent of all household heads are male and 29 percent are female. Only 25 visitors were reported among all the households surveyed, most of whom (85 percent) are adults. The visitors occupy themselves with housekeeping, attending school and farming. A total of 57 household members were absent when the survey was conducted, which represents 9 percent of all adult males in the sample and 8 percent of all adult females. Most of the migrants (60 percent) are men.

As witnessed in the rural population, men spend more time in school than women (see Table 36 and Annex III). A significantly greater proportion of women than men have no schooling at all, and urban women have an average of only 5.5 years of education compared to 6.8 years for men. This is approximately twice the number of years of education reported among the rural population, for both sexes.

Although Bujumbura is Burundi's capital and major urban center, much of its population lives without modern housing and services. As Table 38 shows, most families cook outside and have

Table 36. Urban Household Composition by Region

| Region | No. Adult Fems. ^a | No. Adult Males | No. Child Fems. | No. Child Males | Total Adults | Total Child. | Total H.H. |
|----------------------------|------------------------------|-----------------|-----------------|-----------------|--------------|--------------|------------|
| Urban Burundi ^b | 2.1 | 2.0 | 1.2 | 1.1 | 4.1 | 2.3 | 6.4 |
| | 1.4 | 1.5 | 1.3 | 1.3 | 2.9 | 2.5 | 5.4 |

^aAdult = 15+ years of age; child = 0-14 years.

^bIncludes both rural and urban samples.

Table 37. Urban Mean Education in Years.

| Region | All Adults | All Children | Male Adults | Male Children | Female Adults | Female Children |
|----------------------------|------------|--------------|-------------|---------------|---------------|-----------------|
| Urban Burundi ^b | 6.2 | 2.9 | 6.8 | 3.0 | 5.5 | 2.9 |
| | 3.1 | 2.0 | 3.5 | 1.9 | 2.6 | 2.1 |

^aAdult = 15+ years of age; child = 6-14 years of age.

^bThis includes both rural and urban samples.

no electricity or running water in the house. Nonetheless, in comparing the data in Table 37 with those of Table 3 (see also Annex III), it is apparent that housing standards in urban areas are far superior to those in rural zones; for example, six times as many urban households have electricity as do rural dwellings. Few families (8 percent) have houses with cement or plaster walls, although cement floors and glass or screened windows are more common than in rural areas (see Table 38).

Data indicate that urban families do not own many consumer goods, although people probably underreported their possessions. Not even half of the households (43 percent) report owning radios and only 3 percent have bicycles (see Table 39). Items such as cars, motorcycles and stereos are rare in this population although 19 percent have televisions. Preliminary analysis demonstrates that urban households are materially wealthier than the rural population (in which only 27 percent of households own radios, for example) (see Table 4). Urban households also have more industrially made furniture than do rural households.

2. Making a Living in Bujumbura: Sources of Income

a. Principal Economic Activities

Earning a living in Bujumbura is difficult: one-quarter of the adults surveyed have no profession or are seeking employment (see Table 39). More women than men report having no profession, and more men than women are looking for work. Another 19 percent of the adult household residents are students. The most common occupation reported is that of domestic, which employs 12.6 percent of the people, mainly men. Farming is also a common activity employing 7 percent of all adults and the majority of women. Eight percent of the Bujumbura population is engaged in different levels of commerce, mainly as small-scale merchants, and the equivalent of blue collar jobs (technician/engineer, qualified workers, mechanic) are held by about 9.7 percent of adults, mainly men (see Table 40). Only a small part of the urban population (1 percent) does work usually classified as artisanry (tailoring, masonry). In contrast to artisanry and blue collar work, commerce is an arena occupied by both women and men, especially at the lower levels of small-scale trade, peddling and working as an employee or open air vendor (see Table 40). Professional occupations (doctor, bureaucrat, teacher) employ approximately 9 percent of the adults surveyed. It is interesting that more than half (58 percent) of these professionals are women, who work mainly in offices, as teachers and medical technicians.

The household members who have left Bujumbura (absent residents) are primarily students (see Table 41). The others are engaged in a variety of activities including prostitution and office work. The greatest number of migrants are in Zaire (27 percent)

Table 38. Urban Type of Housing and Services

| Percent of households having: | |
|-------------------------------|-----|
| Interior kitchen | 23% |
| Electricity | 36% |
| Telephone | 14% |
| Water, communal faucet | 57% |
| piped into the house | 23% |
| faucet in compound | 19% |
| Exterior latrine | 58% |
| exterior, communal | 17% |
| inside, with plumbing | 23% |
| Shower room, | 68% |
| outside | 46% |
| inside | 22% |
| Roof, metal | 76% |
| fiberboard (eternit) | 14% |
| thatch | 5% |
| Walls, adobe brick | 54% |
| baked brick | 19% |
| wood | 7% |
| brick and cement | 8% |
| cement and plaster | 8% |
| Floors, dirt | 23% |
| cement | 75% |
| Ceiling, | 42% |
| cement and plaster | 32% |
| Windows, glass | 39% |
| glass and screens | 10% |
| wooden shutters | 41% |
| Doors, wood | 59% |
| metal | 39% |

Table 39. Urban Type and Distribution of Material Goods

| Item | Percent of households | Artisanal manufacture, % of HHs | Industrial manufacture, % of HHs |
|--------------------|-----------------------|---------------------------------|----------------------------------|
| Radio | 43% | | |
| Bicycle | 3% | | |
| Tape player | 44% | | |
| Iron, charcoal | 40% | | |
| Iron, electric | 26% | | |
| Wick lamp | 16% | | |
| Hurricane lamp | 59% | | |
| Coleman lantern | 4% | | |
| Sewing machine | 7% | | |
| Stove | 12% | | |
| Refrigerator | 15% | | |
| Television | 19% | | |
| Stereo | 6% | | |
| Car | 9% | | |
| Truck | 3% | | |
| Motorcycle | 4% | | |
| | | | |
| Beds | | 52% | 44% |
| Dining room table | | 35% | 35% |
| Coffee table | | 35% | 37% |
| Chairs | | 43% | 41% |
| Armoire (cupboard) | | 23% | 40% |
| Couch | | 12% | 36% |
| Mattress | | 43% | 58% |

Table 40. Principal Urban Economic Activities, by Gender and Age

| | All Adults ¹ | All Children | Male Adults | Male Children | Female Adults |
|---|-------------------------|--------------|-------------|---------------|---------------|
| Housewife/Husband | 6.3 | 0 | 0 | 0 | 12.5 |
| Student | 18.7 | 81.5 | 19.5 | 84.6 | 17.9 |
| Disabled, sick, retired | 1.6 | 0.6 | 1.4 | 1.3 | 1.8 |
| Self-employed, ie small business, hawker, peddlers | 8.1 | 0 | 6.8 | 0 | 9.4 |
| Agriculture | 7.2 | 1.9 | 4.1 | 0 | 10.3 |
| Blue collar | 9.7 | 0 | 17.7 | 0 | 1.8 |
| Handicrafts | 0.9 | 0 | 0.5 | 0 | 1.3 |
| White collar | 8.6 | 0 | 7.3 | 0 | 9.8 |
| Businessperson | 2.3 | 0 | 3.2 | 0 | 1.3 |
| Household help | 12.6 | 0.6 | 19.1 | 1.3 | 6.3 |
| Child | 0 | 13.4 | 0 | 11.5 | 0 |
| Unemployed | 24.1 | 1.9 | 20.5 | 1.3 | 27.7 |

Table 41. Principal Urban Activities, Absent Household Residents

| Activity | Percent of all responses | Percent of males | Percent of females |
|--|-----------------------------|---------------------|-----------------------|
| Looking for work | 3% | 0 | 100% |
| Housekeeper | 3% | 0 | 100% |
| Student | 50% | 47% | 53% |
| Invalid | 5% | 0 | 100% |
| Prostitute | 8% | 67% | 33% |
| Farmer | 3% | 0 | 100% |
| Tailor | 3% | 0 | 100% |
| Head of shop | 3% | 100% | 0 |
| Officeworker | 5% | 50% | 50% |
| Merchant, small-scale (1-5 employees) | 3% | 100% | 0 |
| Commerce, employee | 3% | 100% | 0 |
| Midlevel bureaucrat | 3% | 100% | 0 |
| High-level bureaucrat | 3% | 100% | 0 |
| High school teacher | 3% | 100% | 0 |
| Agronomist | 3% | 100% | 0 |
| Military, non officer | 3% | 100% | 0 |

N=108 households

Table 42. Location, Absent Urban Household Residents

| Location | Percent of all migrants | Percent males | Percent females |
|--------------------------|----------------------------|------------------|--------------------|
| Bujumbura | 19% | 71% | 29% |
| Bubanza | 5% | 50% | 50% |
| Muramvya/Gisozi | 5% | 50% | 50% |
| Bururi/Rumonge | 3% | 0 | 100% |
| Makamba | 5% | 100% | 0 |
| Gitega | 14% | 40% | 60% |
| Ngozi | 5% | 50% | 50% |
| Kayanza | 5% | 50% | 50% |
| Kirundo | 5% | 50% | 50% |
| Tanzania | 3% | 0 | 100% |
| Zaire | 27% | 40% | 60% |
| Other African country | 3% | 100% | 0 |

N=108 households

Table 43. Percent of Urban Households Growing Staple Crops in Local Fields

| Crop | Percent of households |
|----------------|-----------------------|
| Beans | 28% |
| Peas | 2% |
| Peanuts | 11% |
| Soybeans | 2% |
| Manioc | 21% |
| Colocasia | 5% |
| Sweet potatoes | 15% |
| Corn | 21% |
| Sorghum | <1% |
| Rice | 7% |
| Eleusine | <1% |
| Wheat | <1% |
| Avocados | 3% |
| Vegetables | 3% |
| Plantains | 3% |
| Beer bananas | <1% |
| Tobacco | 0 |
| Coffee | 4% |
| Tea | 0 |
| Cotton | 4% |

Table 44. Average Urban Daily Income from Petty Commerce

| | Average | Minimum | Maximum |
|-----------------------|---------|---------|---------|
| Sales of Bottled Beer | 861 | 60 | 4,320 |
| Sales of Banana Beer | 933 | 200 | 2,000 |
| Sales of Cigarettes | 755 | 100 | 1,800 |
| Sales of Sodas | 308 | 120 | 500 |
| Sales of Manioc Flour | 1,625 | 600 | 3,500 |
| Repairperson Revenue | 1,200 | 1,200 | 1,200 |
| Sales of Vegetables | 190 | 50 | 330 |
| Other Revenue | 3,882 | 100 | 24,000 |

N=Among those who sold petty commerce.

and Gitega (14 percent) (See Table 42). Data also indicate that many migrants live in Bujumbura but not in their own residences.

b. Agricultural Resources and Production

Urban links to agricultural resources in the interior and agricultural production in fields around Bujumbura indicate that farming is an intricate part of urban households' economic systems. Twenty-seven percent of the households surveyed own property in the interior and more than half (56 percent) use household resources to cultivate those fields. One-third reported renting out their fields in the interior to generate income. Moreover, 28 percent of the urban households cultivate one or two fields locally in Bujumbura. More than half of the respondents (53 percent) own the local fields that they cultivate, although they report paying a fee to the municipality to do so. Fees range from 1,000 to 5,000 FBU annually. Urban households also contribute to rural agricultural production by sending money to their families in the interior -- for hiring labor, buying seed and tools. In return they receive staple foods such as beans that would be more expensive to purchase in the capital. Sixteen percent of urban households reported receiving food from the interior without payment. This symbiosis aptly reflects the interdependence of contemporary urban and rural economic sectors. This system of reciprocity is engendered to perpetuate the mutual stability of urban wage employment and rural agricultural production.

The type of crops that are cultivated by urban households are summarized in Table 43. Staple food crops -- beans, manioc, corn, sweet potatoes -- are the most prevalent; a few households cultivate cash crops such as rice, coffee and cotton. The preliminary data on crop sales indicate that most of the production is retained for household consumption. Consequently, household income from crop sales in the second and busiest agricultural season is small. As in rural areas, both men and women sell crops in the quarters as well as to individual buyers and stores.

c. Livestock, Fishing and Artisanry

Little data are available on other sources of income for urban households. Twenty-two percent of all households own livestock, including animals that are kept by relatives in the interior. Cattle and poultry are the animals most commonly owned by urban families; at least one household raises cattle to earn a living. Only one household reported fishing as a principal economic activity that generates a weekly income from sales of about 500 FBU. Twelve percent of the households have members who do handicrafts to earn money. Basketry and carpentry are the

only handicrafts reported, securing a total household weekly income of 2,421 FBU.

d. Commerce and Other Sources of Urban Income

Petty commerce is a source of income for 33 percent of urban households. This includes selling goods such as cigarettes, sodas and tourist souvenirs as well as employment in activities such as hairdressing and minor repair work. Both men and women reported participation in petty commerce as a major source of cash, averaging 824 FBU per day. (Annual incomes from various occupations are summarized in Table 45).

A smaller number of households (9 percent) are engaged in commerce on a larger scale. These people sell items such as meat, agricultural products, and consumer goods such as rope and shoes. The average weekly income from these sales is approximately 3,815 FBU.

Rental property is another source of income in Bujumbura, especially for women without husbands. Housing in the city usually consists of one long building that is divided up into as many as fifteen rooms, each of which can be rented. Most people pay 1,000-5,000 FBU rent per month which can result in substantial revenues for landlords.

3. Levels and Distribution of Urban Incomes

As is the case in rural areas, cash income distribution among urban households is highly uneven (see Tables 22 and 44; see also Annex III). The richest income quartile in the urban sample earns an average cash sum that is roughly 93 times the income of the poorest income quartile. One indication of rural-urban economic disparity is the fact that the urban rich earn approximately four times more per year than the rural rich. Moreover, the third quartile in the urban sample earns slightly more than the highest quartile of the rural sample (see Tables 22 and 44). At the other end of the scale, the urban poor earn more than twice the annual average of the rural poor.

Agriculture among urban households accounts for a mere 2 percent of total cash earnings, compared with 12 percent among rural households (see Tables 20 and 46). Salaried and business employment are the major venues for accumulation, accounting for 90% of urban earnings. A similar figure (87 percent) was found for rural salaried and business activities. A primary difference between the rural and urban sectors is that the urban poor are predominantly involved in salaried and business activities (93 percent of earnings); agricultural earnings for this group account for only 3 percent of annual household income. Among rural households of the lowest income quartile, the figure is 47 percent.

Table 45. Urban Household Mean Total Income

| Income Quartiles | 1 | 2 | 3 | 4 | All |
|---------------------------------------|--------|---------|---------|-----------|---------|
| Number of Households | 27 | 27 | 27 | 27 | 108 |
| Mean Total Income | 18,563 | 156,266 | 452,895 | 1,722,847 | 587,643 |
| Of which is Agricultural ^a | 578 | 11,857 | 8,793 | 30,065 | 12,823 |
| Of which is Salaried ^b | 5,111 | 90,089 | 335,222 | 922,356 | 338,194 |
| Of which is Business ^c | 12,133 | 53,319 | 102,806 | 589,464 | 189,431 |
| Of which is Other | 741 | 1,000 | 6,074 | 180,963 | 47,194 |
| Total | 18,563 | 156,266 | 452,895 | 1,722,847 | 587,643 |

^aIncludes income from sales of livestock, fruits, vegetables and grains.

^bIncludes income from wage employment.

^cIncludes income from sales of handicrafts and petty trading activities.

Table 46. Percent of Urban Income from Different Activities

| Income Quartiles | 1 | 2 | 3 | 4 | All |
|---|------|------|------|------|------|
| Number of Households | 27 | 27 | 27 | 27 | 108 |
| Percent of Total Income | 1% | 7% | 19% | 73% | 100% |
| Percent of which is Agricultural ^a | 3% | 8% | 2% | 2% | 2% |
| Percent of which is Salaried ^b | 28% | 58% | 74% | 54% | 58% |
| Percent of which is Business ^c | 65% | 34% | 23% | 34% | 32% |
| Percent of which is Other | 4% | 1% | 1% | 11% | 8% |
| Total | 100% | 100% | 100% | 100% | 100% |

^aIncludes income from sales of live , fruits, vegetables and grains.

^bIncludes income from wage employment.

^cIncludes income from sales of handicrafts and petty trading activities.

Table 47. Urban Expenditures on Consumer Goods

| Item | Average expenditure | Percentage of Households |
|-----------------|---------------------|--------------------------|
| Bicycle | 509 | 2% |
| Radio | 1,456 | 6% |
| Cassette player | 712 | 3% |
| Vehicle | 1,917 | 2% |
| Beds | 2,759 | 12% |
| Mattress | 1,634 | 16% |
| Table | 2,741 | 8% |
| Armoire | 2,491 | 6% |
| Refrigerator | 2,074 | 1% |
| Stove | 2,389 | 2% |

N=108

Average annual expenditure on consumer goods: 18,682

Table 48. Monthly Urban Expenditures on Medical Services/Medicines

| | Average Expenditure* (BFR) | Percentage of Households |
|--|----------------------------|--------------------------|
| Amount Spent on Traditional Healers | 157 | 2% |
| Amount Spent on Dentists | 5 | 2% |
| Amount Spent on Doctors | 420 | 31% |
| Amount Spent on Other Medicines | 409 | 6% |
| Amount Spent on Pharmaceuticals | 2,350 | 42% |
| Amount Spent on Other Medical Services | 175 | 6% |

N=108

Average monthly expenditure on medical services/medicines: 3,516

*Only among those who expended.

4. Spending: Household Expenditures

a. Expenditures on Agricultural Production and Livestock

The only data available on urban investment in agriculture and animal husbandry indicate that average annual household expenditures are 10,967 FBU for the former and 2,654 FBU for the latter.

b. Expenditures on Consumer Goods, Social Occasions, Entertainment and Regular Payments

Urban families report spending an average of 74,757 FBU annually to purchase consumer necessities such as construction materials, radios and furniture (see Table 48). Social expenses such as dowries and loans cost families an average of 14,958 FBU each year (see Table 50). About one-third of the households surveyed reported such expenditures and in addition, 17 percent reported spending approximately 1,000 FBU per month on entertainment. Regular payments such as taxes and health insurance are made by a larger proportion of households (67 percent) and average 58,566 FBU annually (see Table 51). Preliminary figures indicate that the urban population spends more money for these purposes than does the rural population: the urban/rural annual expenditures on consumer goods are 74,757/16,685 FBU respectively; 21,747/13,415 FBU for social expenses; and 61,247/26,944 FBU on regular payments. The most common expenditures made by urban households are regular payments, medical care and cash remittances to the interior.

c. The Cost of Food and Household Supplies

Buying food costs the urban household an average of 5,200 FBU per week. As Table 52 shows, the greatest expenditures are food staples: meat, beans, rice, fish and dry manioc. (The urban figures in this section cannot be compared with the rural data because the urban averages are true averages, whereas the rural averages are averages based on the number of households that responded to a question). Commercial foods cost the household an additional 2,264 FBU per week (see Table 53). The commercial foods most frequently purchased by urban families are bread, soft drinks and bottled beer. In addition, household supplies such as soap and matches cost an average of 998 FBU each week (see Table 54). Most households (83 percent) use charcoal for cooking and spend an average of 742 FBU weekly on fuel for both cooking and light. Expenditures for clothes and shoes were reported to average 4,413 per month but it is likely that this figure is inflated since the survey was administered shortly after the opening of school when families purchase uniforms for their children (see Table 55).

Table 49. Annual Urban Social Expenditures

| Type of Expense | Average Expenditure* (BFR) | Percent of Households |
|-----------------|----------------------------|-----------------------|
| Births | 3,778 | 9% |
| Baptisms | 1,219 | 8% |
| Fines | 65 | 3% |
| Dowries | 2,296 | 4% |
| Gifts | 2,218 | 15% |
| Loans | 3,454 | 5% |
| Other | 1,928 | 8% |

N=108

Average annual social expenditures: 14,958

*Only among those who expended.

Table 50. Urban Household Annual Taxes, Regular Fees and Payments

| Type of Expense | Average Expenditure* (BFR) | Percent of Households |
|---------------------------|----------------------------|-----------------------|
| Commercial | | |
| Authorization Taxes | 231 | 3% |
| Bicycle Taxes | 5 | 1% |
| Political Party Card | 1 | 100% |
| Car Insurance | 2,887 | 10% |
| Credit Payments | 26,897 | 14% |
| Health Insurance | 2,957 | 15% |
| Land Rental | 139 | 3% |
| Life Insurance | 780 | 2% |
| Loan Payments | 13,870 | 10% |
| National Health Insurance | 474 | 3% |
| Taxes | 8,218 | 25% |
| Deposits to Credit Unions | 189 | 3% |
| Other Payments | 1,928 | 8% |

N=108

Average annual expenditure on taxes, fees and payments: 58,566

*Only among those who expended.

Table 51. Urban Annual Expenditures on Housing and Related Expenses

| Type of Expense | Average Expenditure ¹ | Percent of Households |
|--------------------------|----------------------------------|-----------------------|
| Fuel Expenses (Charcoal) | 20,349 | 99% |
| Housing Rental | 27,821 | 31% |
| House Repairs/Building | 69,210 | 22% |

N=108

Average annual expenditure on housing and related expenses: 117,380

¹Only among those who expended.

Table 52. Weekly Urban Expenditures on Main/Staple Foods

| Item | Average Expenditure (FRBU) | Percent of Households |
|----------------|----------------------------|-----------------------|
| Beans | 522 | 86% |
| Fruit Bananas | 65 | 38% |
| Banana Beer | 113 | 14% |
| Beer Bananas | 43 | 3% |
| Coffee | 24 | 6% |
| Eggs | 90 | 29% |
| Fish | 392 | 86% |
| Cassava Flour | 283 | 51% |
| Fruits | 87 | 30% |
| Cassava Leaves | 79 | 60% |
| Amaranth | 116 | 71% |
| Milk | 176 | 27% |
| Meat | 701 | 69% |
| Palm Oil | 217 | 88% |
| Peas | 87 | 28% |
| Pantains | 267 | 75% |
| Peanuts | 48 | 36% |
| Potatoes | 219 | 56% |
| Hot Pepper | 19 | 42% |
| Cassava Pate | 19 | 15% |
| Rice | 462 | 83% |
| Salt | 88 | 86% |
| Sorghum | 8 | 6% |
| Sweet Potatoes | 70 | 33% |
| Tobacco | 24 | 10% |
| Tea | 53 | 77% |
| Tolocasia | 55 | 27% |
| Vegetables | 191 | 57% |
| Yam | 24 | 5% |
| Fresh Cassava | 59 | 28% |
| Dried Cassava | 353 | 23% |
| Sugar | 263 | 85% |

N=108

Table 53. Weekly Urban Expenditures on Commercial Foods

| Item | Average Expenditure (FRBU) | Percent of Households |
|------------------|----------------------------|-----------------------|
| Butter | 53 | 6% |
| Bread | 293 | 72% |
| Bottled Beer | 727 | 38% |
| Fried Dough | 18 | 11% |
| Cigarettes | 27 | 11% |
| Packaged Cookies | 32 | 6% |
| Wine/Liquor | 225 | 6% |
| Margarine | 59 | 19% |
| Soft Drinks | 210 | 48% |
| Powdered Milk | 262 | 19% |
| Bottled Oil | 154 | 23% |
| Sardines | 6 | 1% |
| Spaghetti | 62 | 12% |
| Tomato Paste | 136 | 20% |

N=108

Average weekly expenditure on commercial food: 2,264 BFR

Table 54. Weekly Urban Expenditures on Household Supplies

| Item | Average Expenditure (BFR) | Percent of Households |
|--------------------|--------------------------------------|----------------------------------|
| Laundry soap | 262 | 98% |
| Toilet soap | 127 | 64% |
| Dish soap | 33 | 12% |
| Matches | 19 | 90% |
| Candles | 11 | 9% |
| Batteries | 53 | 16% |
| Cosmetics | 236 | 12% |
| Makeup | 219 | 39% |
| Household utensils | 38 | 5% |

N=108

Average weekly expenditure on household supplies: 998 BFR

d. Estimated Annual Expenditures: Urban

As is the case of rural households, the main expense of urban households is staple foods including beans, fish, palm oil and cassava (36 percent of annual household expenditures), followed by commercial foods (15.6 percent) and housing costs (also 15.6 percent) (see Table 56). Annual fees/taxes (7.8 percent), clothes (7 percent), and household supplies (7 percent) also constitute major expenses. Although urban annual household expenditures are several times greater (approximately 3.8x) than rural annual household expenditures, the proportion of income allocated to various items does not differ substantially. For example, 1 percent of urban household expenditures are allocated for consumer goods and the figure (1.8 percent) is only slightly higher for rural households. Social expenditures (2 percent) are also comparable. Urban households, on the other hand, outspend rural households on housing costs (15.6 versus 6.8 percent), medical costs (5.6 versus .8 percent), and commercial foods (15.6 versus 7.6 percent), while rural households spend more for consumer goods (7 versus 2.4 percent)

5. Urban Travel

Approximately one-third of all adult household members reported traveling outside the commune of Bujumbura during the past year. Frequent destinations were the Rumonge/Bururi area (23 percent of all travelers), Muramvya (13 percent), Gitega (13 percent) and Kayanza (8 percent). Almost half (48 percent) of the travelers were men; less than one-quarter (22 percent) were women. The primary reason urban residents travel is to pay social visits (68 percent); they report that work (17 percent) and commerce (11 percent) are less important reasons, although their destinations are important commercial centers. The primary destinations for urban migrants who generally leave Bujumbura for about a month are Gitega and Zaire. In contrast, the rural population travels mainly to Ngozi, Bujumbura and Rumonge; most rural travelers are men (65 percent) rather than women (15 percent); their primary motivation is to work (39 percent) rather than to visit (30 percent).

Only 13 percent of all adults reported traveling to the borders or abroad during 1988-1989. Most of them went to Zaire (39 percent) or another country in Africa (15 percent), although a number (17 percent) also went to Europe. Men represent 48 percent of these travelers and children represent 32 percent; apparently few women travel abroad. Social visits are the major reason for travel abroad, followed by work and study. The fact that most resident noncitizens in Bujumbura are Zairoise explains why such a large number of travelers go to Zaire for social visits. Urban residents travel abroad more than the rural population, in which mainly men (85 percent) go to Rwanda to pay visits and engage in commerce.

Table 55. Monthly Urban Expenditures on Clothes and Supplies

| Item | Average Expenditure (BFR) | Percent of Households |
|--------------------|--------------------------------------|----------------------------------|
| Men's clothes | 503 | 12% |
| Men's shoes | 338 | 10% |
| Women's clothes | 750 | 13% |
| Women's shoes | 194 | 9% |
| Children's clothes | 1,659 | 33% |
| Children's shoes | 974 | 21% |

N=108

Average monthly expenditure on clothes: 4,418 BFR

Table 56. Estimated Annual Urban Expenditures

| Item | Annual Expense | Percent of Total |
|---------------------------------------|----------------|------------------|
| Staple/Main Foods | 271,232 | 36.0% |
| Regular Fees/Taxes | 58,566 | 7.8% |
| Social Expenditures | 14,958 | 2.0% |
| Medical Costs | 42,192 | 5.6% |
| Education Costs | 7,500 | 1.0% |
| Commercial Foods | 117,728 | 15.6% |
| Household Supplies | 51,896 | 7.0% |
| Clothes Expenitures | 53,016 | 7.0% |
| Consumer Goods | 18,682 | 2.4% |
| Housing Costs | 117,380 | 15.6% |
| Estimated Total Urban HH Expenditures | 753,150 | 100% |
| Estimated Annual Urban HH Income | 587,643 | |

X. SUMMARY AND CONCLUSIONS

Approximately ninety-five percent of Burundi's population resides in rural areas, combining a range of agricultural and nonagricultural activities in order to earn an income. Prior to this study only a limited amount of socioeconomic information was available regarding the structure and performance of the rural economy in Burundi. The purpose of the research reported here was to provide such national-level, comparative data on rural as well as urban households. These data should provide preliminary baseline indicators to help formulate appropriate development assistance programs, as well as to monitor and analyze the effects of changes in government policies. The major objectives of the research were to determine the sources and levels of cash income in rural and urban areas, and the patterns and levels of expenditure and consumption.

The rural economy is far more heterogenous and dynamic than previous studies have indicated, encasing a wide range of income generating strategies. Although agriculture is the rural population's primary economic activity, nonfarm activities often generate more cash income for many households. Activities such as commerce, animal husbandry and salaried work are of considerable importance. Men and women share the farming and commerce, although farming is principally the responsibility of women, allowing men to fish, trade and seek salaried work. Commerce is an essential component of both the agricultural system and the rural economy as small traders transport goods around the country, making money as they supply markets in rural areas and secondary urban centers. Thus, the rural population has developed a diversified income base, of which agriculture is a primary but not isolated income-earning strategy. These activities occur within a rural economy that is generally quite homogeneous: regional specializations do exist, in terms of the relative importance of major economic activities, but absolute differences -- for example, a region in which industrial wage labor is the major activity -- apparently do not.

Private enterprise such as commerce, salaried work and wage labor are the significant sources of rural household income. Wage labor usually signifies work in other farmers' fields but it also includes off-farm labor such as working for the commune (building roads) or local projects (brick making). Most wage laborers are men, and most of them work seasonally in their own communes. Sales of agricultural products and processed agricultural products (banana beer, manioc flour) also contribute to household income. The crops that are sold by a substantial proportion of the households and generate large incomes are manioc, all three types of bananas, beans and garden vegetables. The crops that are regional specialties are sold by a smaller proportion of the rural households but can also generate significant revenues; these include peanuts, sorghum, cotton,

rice, tobacco and coffee. Processing these products -- especially banana beer, an economic and dietary staple in Burundi, is an integral part of the agricultural system.

Artisanry and livestock sales contribute less to the household economy. Few households reported income from artisanal activities such as basketry but it is possible that since the survey was conducted during the primary agricultural season when people were occupied in the fields, this figure could underrepresent actual numbers. Animal husbandry is a negligible part of the economic system in most areas and is oriented toward supplying local needs for food and cash rather than production for Burundi's urban markets. The relative importance of these different sources of household income is shown in Figure 1 on page . This survey reports higher incomes and expenditures for rural households than other studies; the fact that a wider range of income activities were examined may partially explain this.

In contrast to previous research on household economy in Burundi, this survey collected information on household expenditures in a broad range of categories. The results show that provisioning the rural household with food, drink and supplies such as fuel accounts for more than half of its annual expenditures. The purchase of staple foods alone -- beans, dried fish, salt -- accounts for almost one-third of those expenditures. Commercial foods (sardines, powdered milk) are a minor part of household consumption but banana beer is a dietary staple. The investment in agricultural production -- renting land, buying inputs, hiring labor -- represents almost one-fifth of annual cash expenditures. The remaining household income is allocated towards the necessities of daily life: housing, consumer goods, social occasions, and taxes. Figure 1 delineates the general pattern of rural household expenditures.

The data reveals that there is a striking inequity in the distribution of cash incomes in the rural sector. Average annual cash income among the richest quartile of rural households is more than 50 times greater than that of the poorest quartile. Furthermore, the richest income Comparing income and expenditures from the six regions surveyed also demonstrates regional variation in household economic condition. Annual household expenditures are highest in the Central Plateau and about one-quarter lower than the rural average in the Transitional Zone, Bututsi and the Eastern Plains. These data thus indicate that households in the latter three regions have a lower economic status than those in the Central Plateau and elsewhere.

The third objective of this research was to investigate rural linkages with the economies of Burundi's urban centers and neighboring countries. The results indicate that people travel outside their commune of residence frequently. Household members, mainly men, leave their homes to study, seek salaried

work and farm. The destinations of migrants clearly reflect the importance of regional urban centers other than the capital, Bujumbura. Migrants frequently travel to urban centers in their own region such as Karur'i in the Central Plateau or Bubanza in the Transitional Zone. The general pattern of travel (not migration) demonstrates the significance of three major commercial centers in Burundi -- Ngozi, Bujumbura and Rumonge -- as well as the importance of secondary urban centers in each region. The majority of these travelers are men, who are seeking work, paying social visits and trading. Travel to and across Burundi's borders is rare although people probably underreported this information because their activities there, mainly trade, are illegal. Consumer goods brought into Burundi without customs' clearance by entrepreneurs are essential for supplying both rural and urban markets, and generating income for the traders. Rwanda is the source of consumer necessities such as bicycles, metal roofing, clothes and soap, and the risk of getting caught crossing the border is worth the potential profits. The rural economy also contains a complex system to evade customs regulations and move goods from Rwanda and Tanzania through rural areas, and to the market in Bujumbura. Thus, like peasants elsewhere in eastern Africa, Burundi's population demonstrates considerable resourcefulness in avoiding restrictive policies and in pursuing activities that enhance their welfare.

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ANNEX I
BURUNDI'S COMMUNES BY ECOLOGICAL REGION

Annex 1
Burundi's Communes by Ecological Region

There are 114 communes in Burundi, including some that were created after the 1979 census. The agro-ecological regions and the communes they contain, as defined for this survey, are listed below.

1. Central Plateau, comprising the regions of Buyenzi, Kirimiro, Bweru and Buyogoma:

| | | |
|----------------------|----------------------|----------------|
| 1. Vumbi | 18. Marangara | 35. Butihinda |
| 2. Muyange | 19. Kiremba | 36. Gasorwe |
| 3. Muyinga | 20. Buhinyuza | 37. Gitaramuka |
| 4. Tangara | 21. Gashikanwa | 38. Nyamurenza |
| 5. Mwemba | 22. Busiga | 39. Ngozi |
| 6. Gahombo | 23. Kayanza | 40. Gatara |
| 7. Butaganzwa (nord) | 24. Butaganzwa (sud) | 41. Muhanga |
| 8. Ruhororo | 25. Rango | 42. Mutaho |
| 9. Gihogazi | 26. Bugenyuzi | 43. Buhiga |
| 10. Mwakiro | 27. Kigamba | 44. Mushiha |
| 11. Gisagara | 28. Mutumba | 45. Cankuzo |
| 12. Bweru | 29. Ruyigi | 46. Butezi |
| 13. Nyabikere | 30. Shombo | 47. Bugendana |
| 14. Giheta | 31. Rutegama | 48. Ndava |
| 15. Nyabihanga | 32. Kayokwe | 49. Gitega |
| 16. Gishubi | 33. Makebuko | 50. Itaba |
| 17. Bukirasazi | 34. Musongati | 51. Rutana |

2. Southern Plateau, the Bututsi region:

| | |
|------------|---------------|
| 52. Songa | 55. Matana |
| 53. Buraza | 56. Rutovu |
| 54. Vugizo | 57. Riyansoro |

3. Northern Depression, the Bugesera region:

| | | |
|------------------|-------------|---------------|
| 58. Bugabira | 61. Busomi | 63. Giteranyi |
| 59. Ntega | 62. Kirundo | 64. Gitobe |
| 60. Bwambarangwe | | |

4. Eastern Depression, the regions of Mosso and Buragane:

| | | |
|--------------|---------------|-----------------------|
| 65. Mabanda | 69. Kibago | 73. Makamba |
| 66. Kayogoro | 70. Gitanga | 74. Bukemba |
| 67. Giharo | 71. Kinyinya | 75. Nyabitsinda |
| 68. Gisuru | 72. Cendajuru | 76. Mpinga- Kayoye |

5. Lake Zone, the Imbo region:

- | | | |
|-----------------|-------------|---------------|
| 77. Rugombo | 81. Buganda | 84. Murwi |
| 78. Gihanga | 82. Wpanda | 85. Mutimbuzi |
| 79. Bujumbura | 83. Kabezi | 86. Rumonge |
| 80. Nyanza-Lac. | | |

6. Transitional Zone, comprising the regions of Mugamba and Mumirwa:

- | | | |
|--------------|----------------|------------------|
| 87. Mugina | 97. Mabayi | 106. Bukinanyana |
| 88. Kabarore | 98. Muruta | 107. Musigati |
| 89. Bubanza | 99. Matongo | 108. Rugazi |
| 90. Bukeye | 100. Muramvya | 109. Mbuye |
| 91. Kiganda | 101. Mubimbi | 110. Isale |
| 92. Kanyosha | 102. Mugongo | 111. Rusaka |
| 93. Mutambu | 103. Mukike | 112. Gisozi |
| 94. Muhuta | 104. Mugamba | 113. Bisoro |
| 95. Burambi | 105. Buyengero | 114. Bururi |
| 96. Vyanda. | | |

ANNEX II

SARSA/USAID RURAL-URBAN HOUSEHOLD QUESTIONNAIRE

SARSA/USAID Rural-Urban Household Survey, 1989

Hello, my name is ----- . I work with ISABU and we are doing a study of household economy.. The objective of this study is to collect information on how households earn money and how they spend it. The information we collect will be used to help plan rural development in Burundi. We will talk with ten households in your colline today. I would like to talk to you and your wife for an hour, if you agree. I have a series of questions to ask you about who lives in your household and your agricultural production. Thank you for your cooperation.

Date _____ _____ 1989
 day month

Name of enumerator _____
Name of controller _____

I.D.# of household _____ _____ _____ _____
 zone commune colline household #
 or urban center

Identification

Commune _____

Colline _____

Name of head of household _____

Sex 1. M 2. F

1. How long have you lived in this colline?
 1. All my life.
 2. _____ years

2. What is your religion?
 1. Catholic
 2. Protestant
 3. Other _____

I. Composition of Household

Use the code sheet.

3. How many people are there in your family who sleep and eat in your menage, and are here today?

| | | | | | |
|---------------------------|----------------------|-----|------------------------|-------------------|-----------------------|
| Relationship with H.H. | Sex, 1= M 2= F | Age | Education (no. yrs) | Marital status | Principal Activity |
|---------------------------|----------------------|-----|------------------------|-------------------|-----------------------|

1. H.H.
- 2.
- 3.
- 4.
- 5.
- 6.

Use the code sheet.

4. How many people who eat and sleep here now are visitors?

1. None

| | | | | | |
|---------------------------|----------------------|-----|------------------------|-------------------|-----------------------|
| No. of days here | Sex, 1= M 2= F | Age | Education (no. yrs) | Marital status | Principal Activity |
|---------------------------|----------------------|-----|------------------------|-------------------|-----------------------|

- 1.
- 2.

Use the coding sheet.

5. How many people who usually live in the menage are not here now?

1. None

| | | | | | | |
|-----------------------|----------------------|-----|------------------------------|-------------------|----------------------------|----------------------------|
| Principal activity | Sex, 1= M 2= F | Age | Educa- tion (no. yrs.) | Marital status | When left (no. days) | Where (commune town) |
|-----------------------|----------------------|-----|------------------------------|-------------------|----------------------------|----------------------------|

- 1.
- 2.

Controller: coding

Total # residents _____
adult male residents _____
adult female _____

residents _____

child male residents _____
child female _____

residents _____

Total number visitors _____
adult male visitors _____
adult female visitors _____
child visitors _____

Total # migrants _____
adult male migrants _____
adult female migrants _____
child migrants _____

II. Rural-Urban Links and Felt Needs

Use the code sheet.

6. During the past year, did anyone from your menage travel to another commune?

1. No.
2. Yes:

| | Who, relation to | Where: | Reason for travel |
|----|---------------------|------------------|-------------------|
| | H.H. | commune province | (work, trade) |
| 1. | | | |
| 2. | | | |

Use the code sheet.

7. During the past year, did anyone from your menage go to a commune near the border with another country, or to another country?

- 1.No.
- 2.Yes:

| | Who, relation to | Where: | Reason for travel |
|----|---------------------|----------------------|-------------------|
| | H.H. | commune/town Country | (work, trade) |
| 1. | | | |
| 2. | | | |

8. What kinds of activities to earn money would you and the members of your menage like to have here? (Record the first three answers).

1. Agriculture.
2. Commerce.
3. Animal husbandry.
- 4.
- 5.
- 6.

9. During the past year, what did you spend most of your cash on?

(Record the first three answers).

1. Food.
2. Clothes.
3. Health care.
- 4.
- 5.

10. During the past year, what did you most often pay for in kind?

(Record the first three answers).

1.Nothing.

2.

3.

4.

11. What are the things you and the members of your menage most need that you cannot afford? (Record the first three answers).

- 1.
- 2.
- 3.

12. What are the main problems you have in earning your livelihood? (Record the first three answers).

- 1.
- 2.
- 3.

III. Household income

A. Agricultural income

13. How many fields do you own on the hill? _____

14. How many fields do you own in the valley (marais)? _____

15. Last year, how many fields did you rent on the hill?

_____ How much did you pay? _____

16. Last year, how many fields did you rent in the marais?

_____ How much did you pay? _____

Use the code sheet.

17. What crops did you sow in the past season of Impeshi?

Check off each crop sown during Impeshi. For each response, ask the following questions:

How much did you harvest?

How much did you sell?

Who sold it, and where?

How much did you earn?

Remember to ask about harvests and sales of perennial crops such as bananas.

1. None.

| Controller: | Total amount harvested | Total amount sold | Where Seller sold | Total income | Amount Consumed |
|---------------------------------|------------------------------|-------------------------|-------------------------|-----------------|--------------------|
| Beans | | | | | |
| Peas | | | | | |
| Corn | | | | | |
| Manioc | | | | | |
| Colocasia | | | | | |
| Sweet potato | | | | | |
| Peanuts | | | | | |
| Potatos | | | | | |
| Sorghum | | | | | |
| Soya | | | | | |
| Rice | | | | | |
| Finger millet | | | | | |
| Wheat | | | | | |
| Avocado | | | | | |
| Vegetables (culture maraichere) | | | | | |
| Igname (yams) | | | | | |
| Intengwa (type of beans) | | | | | |
| Bananas (plantain) | | | | | |
| Bananas (beer) | | | | | |
| Bananas (fruit) | | | | | |
| Sugarcane | | | | | |
| Oranges | | | | | |
| Mangos | | | | | |
| Papayas | | | | | |
| Pineapple | | | | | |
| Tobacco | | | | | |
| Others | | | | | |
| Coffee | | | | | |
| Tea | | | | | |
| Cotton | | | | | |
| Others | | | | | |

Use the code sheet.

18. Ask the following questions for each crop in the list below:
Did you buy ----- last season, for seed or to eat?
Who bought it, and where?
How much was the total quantity?
How much was the total expense?

Sources of Basic Foodstuffs, Impeshi

| Crop expenditure | Bought: | | Where bought | Total quantity | Total |
|--------------------------|------------------|-------|-----------------|-------------------|-------|
| | 1= non 2= oui | Buyer | | | |
| Beans | | | | | |
| Peas | | | | | |
| Corn | | | | | |
| Manioc | | | | | |
| Colocasia | | | | | |
| Sweet potato | | | | | |
| Peanuts | | | | | |
| Potatos | | | | | |
| Sorghum | | | | | |
| Soya | | | | | |
| Rice | | | | | |
| Finger millet | | | | | |
| Wheat | | | | | |
| Igname (yams) | | | | | |
| Intengwa (type of beans) | | | | | |
| Bananes (plantain) | | | | | |
| Bananes (beer) | | | | | |
| Bananas (fruit) | | | | | |
| Tobacco | | | | | |

Use the code sheet.

19. What crops did you sow in the past season of Agatasi?
 Check off each crop sown. For each response, ask the following questions:

How much did you harvest?

How much did you sell?

Who sold it, and where?

How much did you earn?

Remember to ask about harvests and sales of perennials crops such as bananas.

1. None.

| Controleur | Total | Total | | | | |
|---------------------------------|-----------|--------|--------|-------|--------|--|
| Crop | amount | amount | Where | Total | Amount | |
| Consumed | harvested | sold | Seller | sold | income | |
| Beans | | | | | | |
| Peas | | | | | | |
| Corn | | | | | | |
| Manioc | | | | | | |
| Colocasia | | | | | | |
| Sweet potato | | | | | | |
| Peanuts | | | | | | |
| Potatos | | | | | | |
| Sorghum | | | | | | |
| Soya | | | | | | |
| Rice | | | | | | |
| Finger millet | | | | | | |
| Wheat | | | | | | |
| Avocado | | | | | | |
| Vegetables (culture maraichere) | | | | | | |
| Igname (yams) | | | | | | |
| Intengwa (type of beans) | | | | | | |
| Bananas (plantain) | | | | | | |
| Bananas (beer) | | | | | | |
| Bananas (fruit) | | | | | | |
| Sugarcane | | | | | | |
| Oranges | | | | | | |
| Mangos | | | | | | |
| Papayas | | | | | | |
| Pineapple | | | | | | |
| Tobacco | | | | | | |
| Others | | | | | | |
| Coffee | | | | | | |
| Tea | | | | | | |
| Cotton | | | | | | |
| Others | | | | | | |

Use the code sheet.

20. What crops did you sow in the past season of Mu ci?
 Check off each crop sown. For each response, ask the following questions:

- How much did you harvest?
- How much did you sell?
- Who sold it, and where?
- How much did you earn?

Remember to ask about harvests and sales of perennial crops such as bananas.

1. None.

| Controleur | Total | Total | Seller | Where sold | Total income | Amount |
|---------------------------------|------------------|-------------|--------|------------|--------------|--------|
| | amount harvested | amount sold | | | | |
| Crop Consumed | | | | | | |
| Beans | | | | | | |
| Corn | | | | | | |
| Soya | | | | | | |
| Sorghum | | | | | | |
| Rice | | | | | | |
| Manioc | | | | | | |
| Sweet potato | | | | | | |
| Colocasia | | | | | | |
| Vegetables (culture maraichere) | | | | | | |
| Others | | | | | | |

21. Did you sell or rent-out land last year?
 (Ask the same question for each item on the list below).

- 1. No.
- 2. Yes:

| Source of revenue | Total income |
|--------------------------------|--------------|
| 3. Sell land | |
| 4. Rent-out land | |
| 5. Sell agricultural tools | |
| 6. Rent-out agricultural tools | |
| 7. Sell fishing equipment | |
| 8. Rent-out fishing equipment | |
| 9. Other: | |

Use the code sheet.

22. Did you sell banana beer during the past season of Impeshi?
 How many times?
 How much did you earn each time?

Did your wife sell banana beer last season?
 (Repeat the questions for each product in the list below).

1. No.
2. Yes:

| Control: | Product | Person | No. of times | Where sold | Revenue | |
|----------|---------------------|--------|--------------|------------|-----------|-------|
| | | | | | each time | total |
| revenue | | | | | | |
| | 3. Banana beer | | | | | |
| | 4. Sorghum beer | | | | | |
| | 5. Manioc cossettes | | | | | |
| | 6. Manioc flour | | | | | |
| | 7. Pate of manioc | | | | | |
| | 8. Ground peanuts | | | | | |
| | 9. Palm oil | | | | | |
| | 10. Palm wine | | | | | |
| | 11. Other: | | | | | |

B. Income from Livestock

Use the code sheet.

23. Ask the following questions for each species in the list below, beginning with cattle:

- How many ----- do you own?
- How many did your household consume during the past year?
- How many did you sell last year? At what price? Where?
- How many did you buy last year? At what price? Where?

| Species | No. owned | No. eaten | No. sold | Total price | Where | No. bought | Total price | Where |
|-------------|-----------|-----------|----------|-------------|-------|------------|-------------|-------|
| Cattle | | | | | | | | |
| Goats | | | | | | | | |
| Sheep | | | | | | | | |
| Pigs | | | | | | | | |
| Guinea pigs | | | | | | | | |
| Poultry | | | | | | | | |
| Rabbits | | | | | | | | |
| Others | | | | | | | | |

Use the code sheet.

24. During the last two weeks, what animal products did you have for household consumption or to sell?

1. None.

| Controller | Amount | Amount | Where | | |
|----------------------------|----------|--------|--------|------|---------|
| Total Product income | consumed | sold | Seller | sold | Revenue |
| Milk | | | | | |
| Butter | | | | | |
| Meat | | | | | |
| Eggs | | | | | |
| Skins | | | | | |
| Manure | | | | | |
| Honey | | | | | |
| Other | | | | | |

25. How many times each month does your household eat meat?

1. Not every month.
2. Frequency: ____ .

C. Fishing

26. Does anyone in your menage fish, to obtain food or to earn money?

1. Non.
2. Oui. If the answer is oui, ask the next two questions.

27. In what season do you earn the most money from fishing?

1. Impeshi
2. Agatasi
3. Imyaba
4. Other _____

Use the code sheet.

28. Last year during that season:

Who fished?

Where?

For food, to sell or both?

How many times did they fish during the season?

How much did they earn each time?

| Control: | Where | For | For | Frequency | Revenue |
|----------|---------|-----|-----|-----------|---------|
| | 1=lake | | | during | each |
| | 2=river | For | For | | |

total
Person 3=pond food market season time
revenue
1.
2.

29. How many times each month does your household eat fish?
 1. Not every month.
 2. Frequency: ___ ___

D. Wage Labor

30. During the past season of Impeshi, did anyone in your menage do agricultural wage labor?
 Other wage labor?
 Who, where, how many days total, daily wage (or total income)?

1. Non
 2. Oui:

| | Type of work agricultural, other) | Where: commune (1=here) | Total number of days | Daily wage | Total income |
|--------|---|-------------------------------|----------------------------|---------------|-----------------|
| Person | | | | | |

Use the code sheet.

31. During the past season of Agatasi, did anyone in your menage do agricultural wage labor?
 Other wage labor?
 Who, where, how many days total, daily wage (or total income)?

1. No
 2. Oui:

| | Type of work (agricultural, other) | Where: commune (1=here) | Total number of days | Daily wage | Total income |
|--------|--|-------------------------------|----------------------------|---------------|-----------------|
| Person | | | | | |

Use the code sheet.

32. During the past season of Mu ci, did anyone in your menage do agricultural wage labor?
 Other wage labor?
 Who, where, how many days total, daily wage or total income?

1. No
 2. Oui:

| Person | Type of work (agricultural, other) | Where: commune | Total number of days | Daily wage | Total income |
|--------|--|-------------------|----------------------------|---------------|-----------------|
|--------|--|-------------------|----------------------------|---------------|-----------------|

E. Artisanry

Use the coding sheet.

33. What kind of handicrafts did you do last season to earn money?

1. None

| Type of handicraft revenue | Person | Where sold | Seasonal |
|-------------------------------|--------|---------------|----------|
| Basketry | | | |
| Pottery | | | |
| Woodworking | | | |
| Mats | | | |
| Sewing/embroidery | | | |
| Other | | | |

F. All Sources of Household Revenue Last Season

Use the coding sheet.

34. What are all the activities that you and the members of your menage did last season to earn money?

1. Nothing.

| Total Type of activity income | Person: | | | Number of days | Daily income |
|-------------------------------------|---------|------|-------|-------------------|-----------------|
| | H.H. | Wife | Other | | |
| Ironworking | | | | | |
| Cobbling | | | | | |
| Tailoring | | | | | |
| Sell firewood | | | | | |
| Sell charcoal | | | | | |
| Haul water | | | | | |
| Collect thatching/ fodder | | | | | |
| Make bricks | | | | | |
| Make fences | | | | | |
| Transport goods | | | | | |
| Other | | | | | |

35. Address this question to the male head of household:
With which activity did you earn most of your cash last year?

1. Sale of coffee.
2. Sale of banana beer.
3. Sale of agricultural products.
4. Permanent, salaried work.

- 5. Agricultural wage labor.
- 6.

Other _____

36. Address this question to the female head of household:
 With which activity did you earn most of your cash last year?

1. Sale of coffee.
2. Sale of banana beer.
3. Sale of agricultural products.
4. Permanent, salaried work.
5. Agricultural wage labor.
- 6.

Other _____

H. Urban Sector

37. Do you have your own boutique or business?
 Does your wife?

Head of household, male

1. No.
2. Yes:

Head of household, female

1. No.
2. Yes:

| | | | | | |
|---------|----------|-------|--------|------------|-----|
| Person | | | | | |
| 1=H.H. | Type of | Since | Where, | Employees: | |
| Monthly | | | | No. | Sex |
| 2=wife | business | when | 1=here | | |
| income | | | | | |

38. Do you have a salaried job?
 Does your wife?

Head of household, male

1. No.
2. Yes, part-time.
3. Yes, full-time.

Head of household, female

1. No.
2. Yes, part-time.
3. Yes, full-time.

| | | | | |
|--------|---------|--------|-------|---------|
| Person | | | | |
| 1=H.H. | Type of | Where | Since | |
| 2=wife | job | 1=here | when | Monthly |
| income | | | | |

Use the code sheet.

39. What were all the sources of income for your household during the past year?

| | | |
|--------|-----------|---------|
| Person | Source of | Revenue |
| | revenue | |

40. Where do you get your food?
 (More than one answer is allowed)
1. household's own fields
 2. neighborhood market (quartier)
 3. central market (ville)
 4. stores
 5. from relatives, for payment
 6. other _____
-

IV. Household Expenditures

A. Expenditures on agricultural production, fishing and animal husbandry.

Use the coding sheet.

41. Last year, did you buy chemical fertilizers?
 (Ask the same question for each item in the list below).

1. No expenditures

| Type of expenditure | Total expenditure | Where bought | Buyer |
|------------------------|-------------------|--------------|-------|
| Chemical fertilizer | | | |
| Manure | | | |
| Insecticide | | | |
| Agricultural tools | | | |
| Rent land | | | |
| Buy land | | | |
| Buy fishing equipment | | | |
| Rent fishing equipment | | | |
| Feed for livestock | | | |
| Medicine for livestock | | | |
| Others | | | |

B. Wage Labor

42. Last season, did you hire labor for your cultures vivriers?
1. No.
 2. Yes:

| How many times | Type of work | No. of people | Men or women | Total cost |
|----------------|--------------|---------------|--------------|------------|
|----------------|--------------|---------------|--------------|------------|

43. Last season, did you hire labor for your cash crops (coffee, tea, cotton, rice, vegetables, fruits)?

1. No.
2. Yes:

| How many times | Type of work | No. of people | Men or women | Total cost |
|----------------|--------------|---------------|--------------|------------|
|----------------|--------------|---------------|--------------|------------|

44. Last season, did you hire labor for other purposes such as domestic help, construction, help in your business, as a sentinel or driver?

1. No.
2. Yes:

| How many times | Type of work | No. of people | Men or women | Total cost |
|----------------|--------------|---------------|--------------|------------|
|----------------|--------------|---------------|--------------|------------|

C. Housing

45. Last year, did you pay in cash or kind to repair your house or build a new one?

To rent a house?
For other types of construction?

1. No.
2. Yes:

| cost, | Type of building | 1=build 2=repair 3=rent | Total Cash |
|-------|------------------|-------------------------------|---------------|
| Kind | | | |

D. Education

46. How many children did you have in school last year? _____

47. How much did you spend on school fees last year?
On uniforms? Books and supplies? Transportation?

1. Nothing

| Type of expenditure | Total cost |
|---------------------|------------|
| School fees | |

Uniforms
Books and supplies
Transportation
Others

E. Medical Care

48. Did you buy a medical card last year?
How much did it cost?

1. No.
2. Yes:
3. Cost: _ _ _ francs

Use the code sheet.

49. How much did you pay for medicines and medical treatment last season?

1. None

| Person | Medicine/treatment | Total cost |
|--------|--------------------|------------|
|--------|--------------------|------------|

F. Lump and Exceptional Expenditures

50. What kind of payments do you make regularly, such as bicycle tax, payment for the "carte de Parti," deposits in COOPEC, credit or loan repayments?

1. None

| expenditure | Frequency | Total |
|-----------------|-----------|----------|
| Type of payment | each year | per year |

Bicycle tax
 Carte de parti
 COOPEC deposit
 Credit repayment
 Loan repayment
 Rent fishing equipment
 Vehicle insurance
 Life insurance
 Health insurance
 Taxes
 Authorization tax for
 commerce
 Commerce taxes
 Other

Use the code sheet.

51. What major purchases did you make last year such as buying a bicycle, radio, furniture, fishing equipment, land?

1. None

| Type of purchase | Buyer | Where bought | Cost |
|------------------------------|-------|--------------|------|
| Agricultural tools | | | |
| Land | | | |
| Fishing equipment | | | |
| Pirogue/catamaran | | | |
| Household utensils | | | |
| Wood, metal for construction | | | |
| Windows | | | |
| Roofing (tole) | | | |
| Bicycle | | | |
| Radio | | | |
| Cassette player | | | |
| Watch | | | |
| Furniture | | | |
| Clothes | | | |
| Petrol lamp | | | |
| Vehicle | | | |
| Other | | | |

Use the code sheet.

52. What other major expenses did you have last year, such as paying a dowry, marriage, baptism, birth, fines?

1. None

| Type of expense | Person | Cost |
|-----------------|--------|------|
| Dowry | | |
| Marriage | | |
| Baptism | | |
| Birth | | |
| Fines | | |
| Gifts | | |
| Loan | | |
| Other | | |

G. Household Expenditures During the Last Week

Use the code sheet.

53. What food did the members of your household buy last week?

| Item | Quantity | Cost | Buyer | Where bought |
|---------------------------------|----------|------|-------|--------------|
| Beans | | | | |
| Peas | | | | |
| Corn | | | | |
| Manioc, fresh | | | | |
| Manioc, dry | | | | |
| Manioc, leaves | | | | |
| Manioc, flour | | | | |
| Manioc, pate | | | | |
| Colocasia | | | | |
| Sweet potatoes | | | | |
| Potatoes | | | | |
| Igname (yams) | | | | |
| Rice | | | | |
| Peanut s | | | | |
| Sorgh m | | | | |
| Vegetables (culture maraichere) | | | | |
| Lingalinga | | | | |
| Fruits | | | | |
| Bananas (plantains) | | | | |
| Bananas (beer) | | | | |
| Bananas (fruits) | | | | |
| Sugarcane | | | | |
| Meat | | | | |
| Fish | | | | |
| Milk | | | | |
| Eggs | | | | |
| Honey | | | | |
| Palm oil | | | | |
| Salt | | | | |
| Pilipili | | | | |
| Sugar | | | | |
| Tabacco | | | | |
| Coffee | | | | |
| Tea | | | | |
| Banana beer | | | | |
| Sorghum beer | | | | |

Use the code sheet.

54. What packaged foods did you buy during the last month?

| Item | Quantity | Cost | Buyer | Where bought |
|---------------------|----------|------|-------|--------------|
| Nido | | | | |
| Canned tomato sauce | | | | |
| Vegetable oil | | | | |
| Bread | | | | |
| Beignets | | | | |
| Packaged cookies | | | | |
| Margarine | | | | |
| Butter | | | | |
| Spaghetti | | | | |
| Sardines | | | | |
| Canned meat | | | | |
| Fanta | | | | |
| Bottled beer | | | | |
| Wine/liquor | | | | |
| Cigarettes | | | | |
| Others | | | | |

Use the code sheet.

55. What household supplies did the members of your menage buy last week, such as matches, soap, petrol?

| Item | Quantity | Cost | Buyer | Where bought |
|-----------------------|----------|------|-------|--------------|
| Matches | | | | |
| Soap | | | | |
| Mazout | | | | |
| Petrol | | | | |
| Firewood | | | | |
| Charcoal | | | | |
| Candles | | | | |
| Batteries | | | | |
| Cosmetics | | | | |
| Medicine | | | | |
| Medical treatment | | | | |
| Cloth | | | | |
| Clothes | | | | |
| Shoes | | | | |
| Pots | | | | |
| Baskets | | | | |
| Agricultural supplies | | | | |
| Fishing supplies | | | | |
| Other | | | | |

Use the code sheet.

56. What household supplies did the members of your menage buy last month, such as medicine, clothes, shoes?

| Item | Quantity | Cost | Buyer | Where bought |
|-----------------------|----------|------|-------|--------------|
| Matches | | | | |
| Soap | | | | |
| Mazout | | | | |
| Petrol | | | | |
| Firewood | | | | |
| Charcoal | | | | |
| Candles | | | | |
| Batteries | | | | |
| Cosmetics | | | | |
| Medicine | | | | |
| Medical treatment | | | | |
| Cloth | | | | |
| Clothes | | | | |
| Shoes | | | | |
| Pots | | | | |
| Baskets | | | | |
| Agricultural supplies | | | | |
| Fishing supplies | | | | |
| Other | | | | |

V. Material Inventory

A. Household Possessions

57. Write down the number of each item below that is owned by the household.

| Item | Number | |
|-------------------------|-------------------------------------|--------------------------------------|
| Bicycle | | |
| Radio | | |
| Cassette player | | |
| Radio/cassette player | | |
| Stereo | | |
| Television | | |
| Refrigerator | | |
| Stove | | |
| Iron, electric | | |
| Iron | | |
| Ikoroboyi | | |
| Wick lamp | | |
| Pressure lamp | | |
| Gas lamp (lamp tempete) | | |
| Sewing machine | | |
| Motorbike | | |
| Car | | |
| Truck | | |
| Pirogue | | |
| Catamaran | | |
| Motorboat | | |
| Other | | |
| | Number, artisanal manufacture | Number, industrial manufacture |
| Furniture | | |
| Bed | | |
| Dining table | | |
| Coffee table | | |
| Chair | | |
| Mattress | | |
| Armoire | | |
| Couch | | |
| Others | | |

B. Housing and Services

The following observations pertain to the house of the head of the household.

58. How many rooms are there in the house? ____

59. Is the main kitchen inside or outside the house?

1. outside.
2. inside.

60. The roof is made of:

1. thatch
2. tiles
3. sheeting (tole eternit)
4. tin sheeting (toles galvanisees)
5. cement (ciment, dalle de beton)
6. other _____

61. The walls are made of:

1. wood
2. bamboo
3. stone
4. adobe bricks
5. baked bricks
6. brick covered with cement
7. cement blocks
8. plaster
9. other _____

62. The floor is made of:

1. dirt
2. bricks
3. cement
4. tiles
5. other _____

63. The ceiling is made of:

1. without ceiling
2. bamboo
3. reeds
4. matting
5. other _____

64. The house has windows with:
1. glass
 2. screens
 3. screens and glass
 4. wooden shutters
 5. no coverings
 6. without windows
 7. other _____
65. The house has a door of:
1. wood
 2. metal
 3. bambou or thatch
 4. other _____
66. Do you have electricity?
1. No
 2. Yes
67. Where do you get your water?
1. faucet inside the house
 2. faucet in the yard
 3. communal faucet
 4. well in the yard
 5. communal well
 6. river, stream or lake
 7. improved natural source (source aménage)
 8. other _____
68. What kind of W.C. do you have?
1. external latrine
 2. communal external latrine
 3. without latrine
 4. flush toilet, inside the house
 5. flush toilet, outside the house
 6. other _____
69. Do you have a bathroom (shower)?
1. none
 2. inside the house
 3. outside the house
 4. other _____

ANNEX III

COMPARATIVE TABLES ON RURAL AND URBAN ACTIVITIES

Comparative Analysis Rural/Urban Household Composition

| Region | No. Adult Fems. ^a | No. Adult Males | No. Child Fems. | No. Child Males | Total Adults | Total Child. | Total H.H. |
|---------------------|------------------------------|-----------------|-----------------|-----------------|--------------|--------------|------------|
| Rural (All Regions) | 1.4 | 1.5 | 1.3 | 1.3 | 2.9 | 2.5 | 5.4 |
| Urban | 2.1 | 2.0 | 1.2 | 1.1 | 4.1 | 2.3 | 6.4 |

^aAdult = 15+ years of age; child = 0-14 years.

Comparative Analysis Rural/Urban Mean Education in Years; Weighted Results^a

| Region | All Adults | All Children | Male Adults | Male Children | Female Adults | Female Children |
|---------------------|------------|--------------|-------------|---------------|---------------|-----------------|
| Rural (All Regions) | 2.9 | 2.0 | 3.4 | 1.9 | 2.5 | 2.1 |
| Urban | 6.2 | 2.9 | 6.8 | 3.0 | 5.5 | 2.9 |

^aAdult = 15+ years of age; child = 6-14 years of age.

Comparative Analysis
Rural/Urban Income from Different Activities; Weighted Results

| Income Quartiles | 1 | 2 | 3 | 4 | All |
|---|-----|-----|-----|-----|------|
| <hr/> | | | | | |
| Percent of Total Income | | | | | |
| Rural | 2% | 5% | 13% | 80% | 100% |
| Urban | 1% | 7% | 19% | 73% | 100% |
| Percent of which is Agricultural ¹ | | | | | |
| Rural | 47% | 39% | 35% | 6% | 12% |
| Urban | 3% | 8% | 2% | 2% | 2% |
| Percent of which is Salaried ² | | | | | |
| Rural | 0 | 3% | 10% | 67% | 56% |
| Urban | 28% | 58% | 74% | 54% | 58% |
| Percent of which is Business ³ | | | | | |
| Rural | 37% | 45% | 45% | 25% | 29% |
| Urban | 65% | 34% | 23% | 34% | 32% |
| Percent of which is Other | | | | | |
| Rural | 16% | 13% | 10% | 1% | 3% |
| Urban | 4% | 1% | 1% | 11% | 8% |

¹Includes income from sales of livestock, fruits, vegetables and grains.

²Includes income from wage employment.

³Includes income from sales of handicrafts and petty trading activities.

Comparative Analysis
Rural/Urban Type of Housing and Services

Percent of households:¹

| | Rural (All Regions) | Urban |
|--------------------------|---------------------|-------|
| Interior kitchen | 54% | 23% |
| Electricity | 6% | 36% |
| Water, communal faucet | 41% | 57% |
| Exterior latrine | 94% | 58% |
| Shower room | 30% | 68% |
| Shower room, outside | 24% | 46% |
| Roof, thatch | 53% | 5% |
| Roof, metal | 39% | 76% |
| Walls, wood | 64% | 7% |
| Walls, adobe brick | 28% | 54% |
| Floors, dirt | 85% | 23% |
| Floors, cement | 14% | 75% |
| Ceiling | 19% | 42% |
| Windows, wooden shutters | 49% | 41% |
| Windows, glass | 12% | 39% |
| Doors, metal | 4% | 39% |

¹all regions = percent of the rural sample (339 hhs); for each region = regional distribution of those households

Comparative Analysis
Rural/Urban Income from Different Activities; Weighted Results

| Income Quartiles | 1 | 2 | 3 | 4 | All |
|---------------------------------------|--------------|--------------|---------------|-----------------|----------------|
| Mean Total Income | | | | | |
| Rural | 8,681 (2%) | 30,111 (5%) | 71,203 (13%) | 446,243 (80%) | 139,060 (100%) |
| Urban | 18,563 (1%) | 156,266 (7%) | 452,895 (19%) | 1,722,847 (73%) | 587,643 (100%) |
| Of which is Agricultural ¹ | | | | | |
| Rural | 4,106 (47%) | 11,630 (39%) | 24,806 (35%) | 28,766 (6%) | 17,328 (12%) |
| Urban | 578 (3%) | 11,857 (8%) | 8,793 (2%) | 30,065 (2%) | 12,823 (2%) |
| Of which is Salaried ² | | | | | |
| Rural | 0 (0) | 969 (3%) | 7,371 (10%) | 300,509 (67%) | 77,212 (56%) |
| Urban | 5,111 (28%) | 90,089 (58%) | 335,222 (74%) | 922,356 (54%) | 338,194 (58%) |
| Of which is Business ³ | | | | | |
| Rural | 3,189 (37%) | 13,454 (45%) | 32,237 (45%) | 113,257 (25%) | 40,534 (29%) |
| Urban | 12,133 (65%) | 53,319 (34%) | 102,806 (23%) | 589,464 (34%) | 189,431 (32%) |
| Of which is Other | | | | | |
| Rural | 1,387 (16%) | 4,058 (13%) | 6,786 (10%) | 3,710 (1%) | 3,985 (3%) |
| Urban | 741 (4%) | 1,000 (<1%) | 6,074 (1%) | 180,963 (10%) | 47,194 (8%) |

¹Includes income from sales of livestock, fruits, vegetables and grains.

²Includes income from wage employment.

³Includes income from sales of handicrafts and petty trading activities.

Comparative Analysis
Rural/Urban Estimated Annual Expenditures

| Item | URBAN | | RURAL | |
|---------------------------------|----------------|------------------|--------------------------------|------------------|
| | Annual Expense | Percent of Total | Annual Expense | Percent of Total |
| Staple/Main Foods | 271,232 | 36.0% | 83,156 | 42.5% |
| Regular Fees/Taxes | 58,566 | 7.8% | 24,079 | 12.3% |
| Social Expenditures | 14,958 | 2.0% | 3,872 | 1.9% |
| Medical Costs | 42,192 | 5.6% | 1,595 | 0.8% |
| Education Costs | 7,500 | 1.0% | 3,621 | 1.8% |
| Commercial Foods | 117,728 | 15.6% | 14,940 | 7.6% |
| Household Supplies | 51,896 | 7.0% | 37,401 | 19.0% |
| Clothes Expenditures | 53,016 | 7.0% | INCLUDED IN HOUSEHOLD SUPPLIES | |
| Consumer Goods | 18,682 | 2.4% | 13,813 | 7.0% |
| Housing Costs | 117,380 | 15.6% | 13,217 | 6.7% |
| Estimated Total HH Expenditures | 753,150 | 100% | 195,698 | 100% |