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INTERNATIONAL
DEVELOPMENT**



BURUNDI

**COUNTRY DEVELOPMENT
STRATEGY STATEMENT**

FY 83

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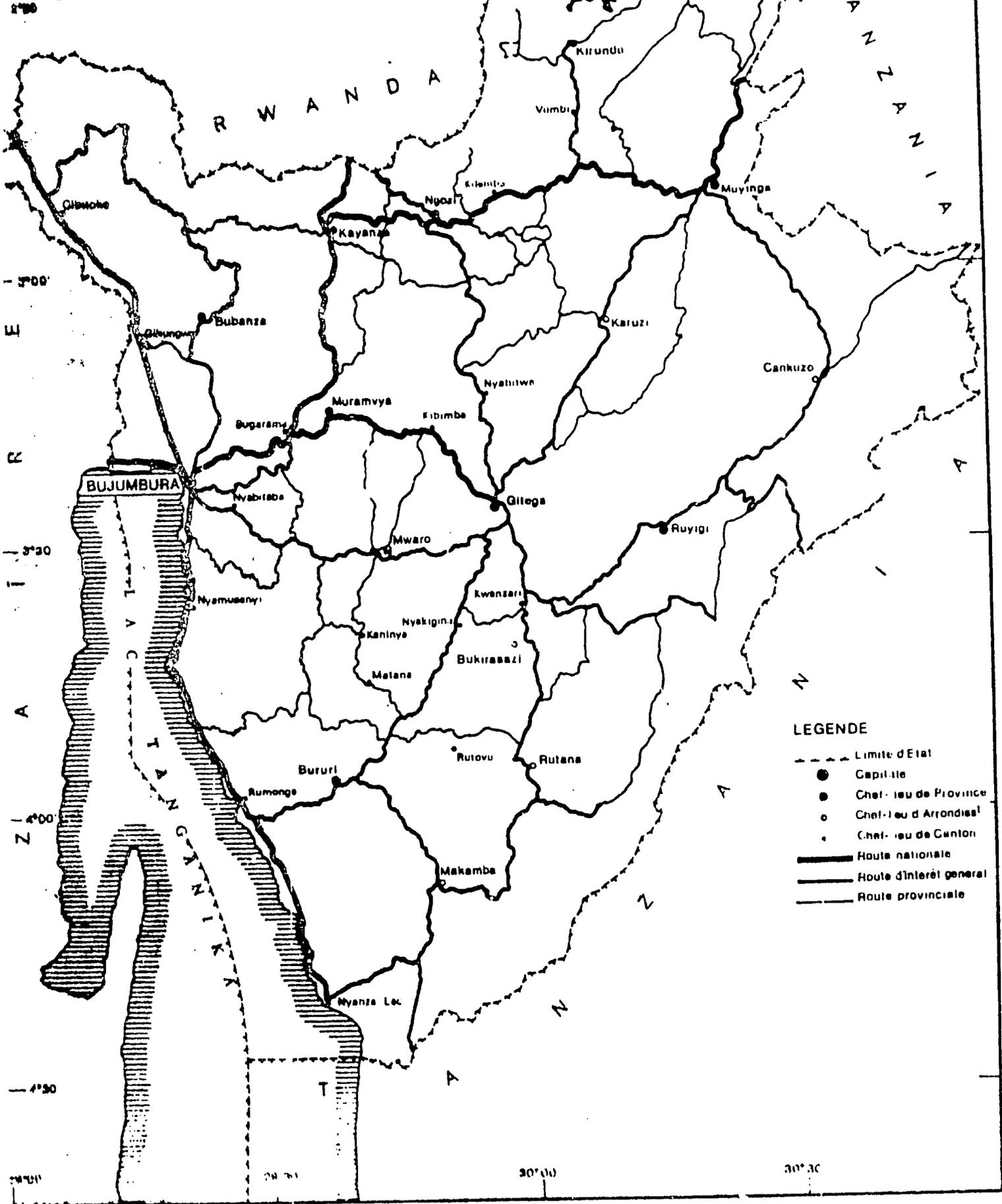
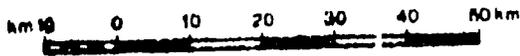
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REPUBLIQUE DU BURUNDI



LEGENDE

- - - Limite d'Etat
- Capitale
- Chef-lieu de Province
- Chef-lieu d'Arrondissement
- Chef-lieu de Canton
- Route nationale
- Route d'Interêt general
- Route provinciale

INTRODUCTION AND SUMMARY

Landlocked Burundi is one of the "Relatively Less Developed Countries" in the world with per capita income of about \$140. It has the second highest population density on the African continent, a stagnating food production system, a deteriorating environment with rapidly decreasing fuel availability, and the poor health situation associated with underdevelopment. The population of Burundi is 95 percent rural, living not in villages but in dispersed homesteads. More than 50 percent of the GDP comes from subsistence agriculture, which employs about 90 percent of the labor force. Although the population growth rate (variously estimated at 2.0 to 2.7 percent) is not as high as in several other African countries, it is apparent that Burundi could face severe food, land and fuel shortages before the end of the century.

On the positive side, however, Burundi has been blessed by nature with better than average soils, relatively disease free highland areas, and good rainfall distribution, all which have enabled the country to support a dense population and grow two crops a year. It is feasible therefore to increase food crop yields well beyond present levels at reasonable costs. Most importantly, the Government of the Republic of Burundi clearly recognizes the seriousness of the population/land/food problem, and has, under the Second Republic, repeatedly demonstrated leadership in improving the lot of the entire rural population -- most especially in accelerating food production. The GRB has had to make substantial investment in physical infrastructure, human resources and institutional development because it inherited very little upon independence. The shift in GRB attitudes and actions has been particularly clear in the past 18 months. The commitment was made manifest in the resolutions passed by the first National Congress of UPRONA in December 1979, as well as by subsequent GRB actions, with President Bagaza leading the way.

Since the establishment of the Second Republic in 1976, the Burundi economy has performed well compared to many other "Relatively Less Developed Countries". Part of this was due to good fortune, but much of the rest is due to commitment and hard work. Corruption -- both in absolute and comparative terms -- is almost non-existent; so, too, are resources wasted on "prestige" or non-productive and non-economic projects. The monetized sectors of economy of Burundi recovered rapidly from the dislocations of the Tanzania/Uganda war. The economy's performance in 1980, despite a poor coffee crop, should be better than

that of 1979. Real Gross Domestic Product grew only 3.3 percent between 1970 and 1975 (from FBU 21,475 million to FBU 22,186.7 million) in constant 1970 prices. However, between 1975 and 1979 it increased by 27.8 percent when GDP reached 28,349 million in constant 1970 prices.

The GRB has made a major effort to mobilize its own resources for the development of the country. For example, in 1975 the government collected 9.0 percent of GDP as direct and indirect taxes, while in 1979 these taxes increased to 12.8 percent of GDP. Ordinary budget expenditures in 1975 on social services were 2.8 percent and on economic services 1.2 percent of GDP, but in 1979 these figures had risen to 3.1 percent and 1.7 percent respectively.

The GRB has launched major reforms of the primary education system, stressing technical and non-formal education. The Public Health Ministry has recently decentralized and started emphasizing preventive medicine. We have observed many indications over the past year of a rising concern about the population growth rate and the need to do something about it (see Section I/E). The Second Republic has stressed agricultural development and investment in that field increased 1975 and 1978 from FBU 33.5 million to FBU 547.8 million, or a sixteenfold increase in only four years. In fact, the Government's ability to spend has probably momentarily caught up with the country's capacity to absorb increased investment rates in agriculture, drawing attention to the classic problems of the lack of human resources and trained personnel to plan and implement projects; the lead time needed to plan projects; and Burundi's landlocked location and chronic POL shortages.

The basic objective of AID's strategy is to help solve the land/food/population dilemma faced by the rural poor possessing a small resource base. The primary beneficiaries from a limited number of carefully selected, interlocking projects will be about half a million people mostly in the densely populated Zaire/Nile Crest and Central Plateau Region. About 126,000 poor urban dwellers or 60 percent of the country's growing urban population will also benefit from alternative energy projects by 1987.

AID's three strategy objectives for resolving this dilemma are:

- Increasing food availability to the rural poor, particularly in densely populated areas;
- Reducing rate of loss of arable land to soil erosion and increasing the availability of alternative energy sources to the rural and urban poor; and

-- Improving the delivery of health and family planning services.

At present, AID is a relatively minor assistance donor to Burundi. Even with the increased levels of assistance proposed in this CDSS, AID will probably provide less assistance than half a dozen bilateral and multilateral donors. AID will become the principal donor in one field only: alternative energy (peat and cooking stoves), with neighboring countries that possess peat reserves themselves carefully monitoring our progress in this innovative project.

We believe that AID should also develop a coordinated and integrated strategy for the Great Lakes Region, particularly now that a regional economic community exist. Rwanda, Burundi and Kivu province of Zaire face the same problems, as Uganda and Northwestern Tanzania do to a lesser extent. Projects should, however, continue to be implemented bilaterally, due both to the accountability and greater efficiency of our own organizations as well as to the considerable political benefits which accrue to bilateral donors in this politically sensitive area of Africa.

To that end, AAO/Burundi and AAO/Rwanda have jointly proposed a scope of work for a Great Lakes "Mini-Regional Development Strategy Statement", which could provide valuable spinoffs both in shared experiences and research, as well as in strengthening the political cohesiveness of a once turbulent region.

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SECTION I: ANALYSIS

A. ECONOMIC REVIEW

1. Gross Domestic Product and Inflation

Gross Domestic Product (GDP) grew an average of 1.2 percent in real terms during 1972-1975, then jumped to a 5.5 percentage average growth for 1976-1978¹⁾. In 1979, however, the growth rate dropped to 3.2 percent, due largely to the reduced flow of imports experienced in late 1978-1979 during the Uganda/Tanzanian conflict. An emergency air bridge from Dar-es-Salaam to Bujumbura was financed by some donors in May-July 1979, in order to get imports to Burundi, whose normal supply routes had been almost completely cut off. The lack of necessary imports and fuel set back the implementation of Government investment, and GDP probably declined during the first half of 1979. The situation also caused considerable inflation, which reached a rate of 25.9 percent in 1979, compared to a rate of 8-9 percent for 1978. Inflation received an additional boost from the 1979 and 1980 increase in oil prices and its impact on transportation costs.

2. Structure of the Economy and Sectoral Distribution

Out of Burundi's GDP, the primary sector (subsistence agriculture, cash crops, livestock, forestry and fishing) accounted for 62 percent, the secondary sector (agro-industry and processing, industry, commerce, construction) 14 percent and the tertiary sector (services) 24 percent. Growth of GDP for 1979 was due largely to the performance of the tertiary sector, which grew in real terms by 4.9 percent, since the absorptive capacity of the primary sector is limited and grew by only 2.5 percent, while the industrial sector grew very little, if at all. (Mining activities were practically suspended and construction showed a 6 percent decline for the year from the exceptional levels of 1978 because of the transportation problems).

Burundi's major agricultural product and export, coffee, accounts for 90 percent of Burundi's export earnings, with the primary sector as a whole providing 99 percent of foreign exchange revenues. Thus the unusually high coffee production for 1979 of 24,000 tons, and better-than-predicted coffee prices for the year, served to stimulate Burundi's economy during the latter half of 1979 despite the bad start. Although the production of cotton and fishing declined for the year, production of tea continued its gradual increase.

1) Please refer to Annex A for macroeconomic tables.

Burundi imports very little food (wheat flour for urban consumption, plus limited quantities from PL 480 Title II and the World Food Program). Per capita food production, however, has been declining over the last decade because of continuing population growth and declining yields as land is eroded and over-farmed. Therefore, even though Burundi appears to be marginally self-sufficient in food during a "good" year, the average diet is deteriorating in qualitative terms. Even caloric intake is below the accepted minimum. Reversing this trend by increasing productivity is AID's highest priority.

3. Income Levels, Growth and Distribution

Estimates of the per capita GDP for Burundi at the end of 1979 range from \$140 to \$180 per annum. Out of a population estimated from 4.0 to 4.5 million, perhaps only 100,000 persons received regular salaries in 1979, the majority of whom worked for the government or public sector enterprises. Towards the end of 1978 and during early 1979 unemployment increased dramatically due to shortages of imports, especially for construction projects. Ninety-five percent of total employment is in subsistence and market agriculture, where underemployment is widespread due to shortages of farmland.

4. Macro-Economic Planning

In 1976 a reorientation of economic policies toward a more active development strategy occurred with the change in government and the establishment of the Ministry of Plan. Promotion of food production was given highest priority as was increasing the production of coffee. Burundi has also been attempting to diversify exports by expanding the production of tea and cotton.

Since domestic resources for investment are very limited, Burundi has relied heavily on foreign financing for its investment programs. It has been careful to funnel most coffee revenues and certain other taxes into investment. The GRB's policy of allowing foreign exchange reserves to build up during years of high export earnings and to decline during years of lower export revenues has been particularly successful since it has enabled the GRB to follow a consistent investment program as well as minimize the impact of fluctuations in earnings on the domestic economy. Foreign financing of investment during the 1979-1983 Plan period is expected to cover 51 percent of total investment, including the 20 percent of the total to be funded by grants.

As a result of the GRB's foreign exchange policies, net reserves at the end of 1979 amounted to \$65.8 million, down from a level of \$69.6 million in 1978. Net reserves at the end of 1979 covered 5.1 months of imports, whereas they covered 6.8 months of imports at the end of 1978. Projections of the 1979-1983 development plan show a continued decline in foreign exchange reserves throughout the Plan period, and indeed Burundi accumulated a balance of payments deficit in 1979 for the second year in a row after two years of surplus in 1976 and 1977.

5. Central Government Budget

Both 1978 and 1979 were years of expansionary monetary policies, but because of the limited growth potential for revenue, the government recognized that expenditures could not continue at the same rate of increase. And indeed, the coffee crop for 1980 of 18.4 thousand tons has turned out to be a 23 percent decline from 1979's production.

Thus even before the assessment of the 1980 coffee crop, projected 1980 expenditures for both the Ordinary and the Extraordinary Budgets were set at a level only 12 percent above that of 1979, whereas the total of the 1979 budgets were 33 percent greater than in 1978. The Ordinary Budget provides most of the money spent on social and economic services, with the exception that 60 percent of agricultural investment comes from the Extraordinary Budget.

Ordinary Budget: The Ordinary Budget for 1979 was 48.8 percent larger than that of 1978, but 1980's Budget expenditures were planned to increase only 2.4 percent over 1979. Spending on education, public health, agriculture, and social/labor affairs all declined as a percentage of the 1979 budget -- 23 percent as opposed to 30 percent in 1978 -- even though spending grew in nominal terms. For 1980, however, the percentage of the Budget spent on these services increases to 27 percent. Spending on agriculture, which had been 3.5 percent of the total Budget expenditures in 1978 and 1979 increased to 4.2 percent of the budget for 1980.

Extraordinary Budget: The Extraordinary Budget, which finances most investment, grew 11 percent in 1979 and was planned to increase by 26.1 percent in 1980. Most of the Extraordinary Budget is financed by foreign assistance. Capital expenditures were 90.5 percent of this budget in 1978 and 87.4 percent in 1979.

In all, Burundi's financial policies over the last few years have been relatively successful in achieving a satisfactory rate of growth while ensuring stability, especially considering that the country has had to deal with a high rate of inflation in supplier countries, the strangling of its import routes in 1978-1979, and the large differences in coffee production and export earnings from year to year. Conservative financing policies have resulted in a very low external debt service ratio¹⁾ of 5.1 percent in 1978 which decreased to 4.0 percent in 1979.

B. SOCIAL ANALYSIS

1. Social Structure

Social and economic forces over the past few decades are causing a number of changes from the classic anthropologic descriptions of Burundi's society. The traditional description is that of a three "caste" system of Tutsi "overlords", Hutu "serfs" (the 84 percent descended from Bantu farmers) and Twa "outcasts" (one percent, descended from pygmy tribes). All groups speak the same language, Kirundi, as their mother tongue.

The system which is gradually emerging includes a very small elite of Tutsi descent (about 0.5 percent of the population) which co-opts some individuals of Hutu origin. This elite does share some power with a Tutsi-Hutu emerging middle class which has gained money and/or education through cultivation of cash crops, business, or traditional position. For the most part the key members of these leadership groups live in Bujumbura and both groups combined account for about ten to fifteen percent of the population. The rural poor, both Hutu and Tutsi, live side by side and perhaps 15 to 25 percent intermarry. These hill people struggle to scratch out a living from insufficient and exhausted land.

The average Burundian lives in a homestead ("ruغو") dispersed on a hillside with a dozen or so similar units usually occupied by kinsmen. The kinship groups are frequently only a few generations deep, leading to an extremely fragmented social structure. Villages and market towns barely exist. All this means that the initial organization for implementing rural development programs is extremely difficult. Change often will move rapidly, once it gets underway, facilitated by the fact that everyone speaks Kirundi.

1) annual debt amortization plus interest
annual exports

2. Demographic Structure

Burundi is the second most densely populated country on the African continent. Since available demographic data vary considerably, AAO/Burundi anticipates that the forthcoming Health/Family Planning Sector Assessment will clarify the situation.

There are two basic sets of data: the census conducted in August 1979 (with UNDP technical assistance) and the Population Reference Bureau. The census gave a population of 4,021,910 but the Population Reference Bureau uses a 1980 estimate of 4.5 million people. The IBRD Social Indicators estimate annual rates of population growth at 2.0 percent (1960), 2.4 percent (1970) and 2.0 percent (1980). The UNDP quotes a current rate of 2.2 percent. Ann S. McCook, in her demographic report to CEPGL (Economic Community of the Great Lakes Countries) used a figure of 2.7 percent for the current rate of natural increase, or a doubling of current population in 25 years.

Life expectancy at birth has increased from 37.0 years in 1960 to 45.0 years by 1978, while the crude death rate per thousand has decreased from 27.0 per 1,000 in 1960 to 20 per 1,000 at present. The crude birth rate given in one source was 44.0 per 1,000 in 1970 and 41 per 1,000 in 1975 and 1979. The Population Reference Bureau figure is 47.0 per 1,000 live births. Infant mortality rates (IBRD Social Indicators) were 150 per 1,000 live births in 1960 and 138 in 1970. McCook and others use about 140 per 1,000, while the UNDP quotes a current rate of 160. The percentage of population under the age of 15 was estimated at 42.5 percent in 1960, 42.5 percent in 1970 and 43.9 percent in 1978.

At times, Burundi has had substantial out-migration or in-migration from neighbouring countries. Significant outmigration into the Kivu province of the then Belgian Congo occurred during World War II, while Burundi received about 100,000 political migrants during 1959-1964.

Internal migration is primarily from the "interior" to Bujumbura city (5 percent population increase a year) and consists largely of unemployed youths who lack incentives to stay on the ruغو. Men also move off the farm temporarily to work as laborers on road projects, tea plantations and other agricultural activities. Consequently Bujumbura has about 126 males to each 100 females, while the rural provinces (particularly Muramvya) have an excess of females.

About 95 percent of Burundi's population live in rural areas, virtually all in scattered homesteads rather than villages. In the 1979 census Bujumbura had 141,000 inhabitants or about 3.5 percent of the total population. The other principal towns are Gitega - 8,000; Rumonge - 5,000; and Ngozi - 4,000. See section I/D/4 regarding population density for additional information.

3. Education

In 1973, the Government embarked on an education reform program with UNESCO assistance. Kirundi is now the medium of instruction in primary school. The new curriculum is oriented towards the rural milieu, and agriculture in particular. Primary schools are gradually being transformed into community schools, which are becoming centers for adult education and for programs for out-of-school youth as well as civic activities. Approximately 23 percent of primary school-age youngsters attend government schools at present.

The educational reform also included reorganizing and reorientating secondary education. At present there are two types of secondary schools, humanities and technical. The humanities program lasts for six years, after which the student may take general courses at the University of Burundi and then specialize for three years. Under the technical program, the students go directly from primary school into a three-year technical program or into the first three years of a humanities secondary school. Students graduating under both systems may attend technical institutes to complete their training. About 3,000 students completed both types of secondary school in 1978.

The University of Burundi was established in 1963. It currently has nine faculties with an enrollment of 1,813 students (law, 341; economics and administration, 318; humanities, 364; medicine, 160; general science, 368 (including 57 in the first two years of agronomy); teacher training, 49 (including 28 in biology/agriculture); agronomy, 49; psychology and education, 111; and physical education, 29).

The GRB ^{also} is placing an increased emphasis on non-formal education. The GRB has a department of non-formal education in the Ministry of Education, a "department of Social Promotion" where young adults are instructed in foyers sociaux (social centers), and a Department of Youth in the Ministries of Youth, Sports and Culture. The GRB is particularly concerned about basic education (including Party and Government objectives) for children not attending schools and vocational training for dropouts. The commune¹⁾ will be the central focus for adult education, which includes training in agriculture, nutrition and health.

1) A local government unit which roughly corresponds to a U.S. county.

The religious missions play an important role in basic education. The Yagamukama ("Talk with the Lord") basic education centers teach reading, writing, improved cultivation of foodcrops, health, nutrition and environmental sanitation to an estimated 270,000 children (45 percent of the 6-11 age group) and nearly 40,000 adults outside the state system. Practical work reinforces instruction using basic Kirundi texts and educational materials.

4. The Role of Women

In traditional life, Burundian women were subordinate to men. They had little political power, few legal rights, and could not inherit cattle or land outright. In current practice, widows and women who are separated can act as the (effective) guardian/trustee for minor children. The new family code law (1980) takes a fairly progressive attitude and strengthens women's rights particularly regarding divorce, custody, inheritance, etc. Women have the major influence on and responsibility for food production and a fair amount of freedom in making decisions regarding types of food and methods of food production.

Men's occupations include caring for livestock, hunting, clearing land, raising bananas, preparing charcoal and, more recently, producing cash crops. Men are recruited for agricultural work on government crop production estates, research stations, mission farms, and development projects. Seasonal and part time activities for men are road construction, road maintenance, and reforestation programs. Male heads of families with insufficient land or without cash crops are the most likely to seek work away from the rugos. Surveys have shown that in some areas about a third of all rugos along the Zaire/Nile crest are permanently or temporarily headed by women.

Woman's activities concentrate on food production and preparation, including wood gathering, as well as raising children. Men rarely work on food crop fields except for land clearing and some crop production for the urban market. Most women do not raise cash crops for themselves, but they may work on cash crop belonging to the family. In one area along the Zaire/Nile crest due east of Bujumbura, field interviews indicated that husbands used to clear the fields, but now they do not because they work on the peat bogs during the dry season. The men provide money, give their family money earned on the bogs to hire laborers for four work-days per season to clear the fields. In northern Bururi province, some men used to help with harvesting and planting, but the fact that they no longer do so when employed on the peat bogs during the dry season is not regarded as critical, because these men are available for farm work during the growing season.

A woman aged 24 to 34 years often consumes about 10 percent fewer calories than her husband does in the same household. Since about half the women in this age group are pregnant or lactating at any one time, these deficiencies pose serious problems for both mother and child.

Unlike West Africa, rural Burundi does not have well developed rural market networks. Food wholesalers throughout the countryside are apt to be non resident men rather than local women. Women do participate in local markets in small activities, usually selling homemade beer, and sometimes even purchasing bottled beer for resale.

C. THE RURAL POOR

Burundi's per capita GDP is about \$140 at present, but the World Bank states that in 1975 about 90 percent of the rural population was below the absolute poverty income level. Only 30 percent of the urban population was in the same category¹⁾. The rural "poverty line" for the absolute poor was \$80 per year in 1975 whereas per capita GDP was about \$107. The income level below which an urban dweller could not purchase a minimum nutritionally adequate diet plus essential non-food requirements was \$121. Prices and inflation have greatly increased the percentage of people with income less than the absolute poverty income level.

According to the 1979 census data 6.4 people in the average ruغو (homestead) which contains 1.3 households (nuclear families) with 4.1 members each. In a typical rural area, only three percent of the houses have metal roofs. The women cultivate a series of small foodcrop fields, usually on steep slopes, that run downhill from the ruغو. Many fields are cropped twice a year, using succession planting and intercropping. Bananas are grown for beer and food up to about 1,800 meters. At higher altitudes sorghum and millet are used to make beer. In coffee and tea growing areas, the men will often have a very small plot of perennial crops - perhaps a tenth of an acre. Almost no land is left fallow. Chemical fertilizers may be used on cash crops, when available but it is rarely used²⁾ on food crops. Although we do not have recent data on cattle ownership, probably less than 40 percent of the population have any cattle at all. In Ngozi, the most densely populated province, very few people own cattle since land is simply not available for grazing.

A survey done in 1977²⁾ indicated that the average ruغو in the Muramvya area along the Zaire/Nile crest grew the following in a year (two cropping seasons):

(see table next page)

1) A more recent project paper estimated that 55 percent of the urban population lived at the poverty level or below.

2) Quoted in GRB "Production Vivrière en Haute Altitude".

<u>Foodcrops:1977</u>	<u>ha.</u>	<u>yield kg/ha</u>	<u>kg production</u>	<u>FBu value</u>
Wheat	.117	553	65	1,940
Maize	.489	605	296	5,921
Peas	.088	416	37	1,087
Potato	.004	5,224	21	293
Sweet Potato	.112	5,455	611	3,971
Beans	.166	300	50	1,250
Finger Millet (for beer)	.028	350	10	300
Sorghum (for beer)	.134	400	54	1,080
Manioc	.005	<u>10,000</u>	50	530
Subtotal	<u>1.143</u>		<u>1,194</u>	<u>16,402</u>
Tea	.120	1,800	216	2,180
Animal products				1,800

Total production of the ruغو was \$227.60 for an agricultural year.

Recent studies conducted in conjunction with the IBRD Ngozi coffee project indicate that since prices paid to coffee farmers have remained unchanged in recent years, while foodstuffs and manufactured items have soared, the terms of trade have gone quite severely against the farmer. The farm surveys that are available indicate that families probably produce insufficient food to meet their minimum consumption requirements in densely populated districts of Muramvya, Gitega and Ngozi provinces. This conclusion is reinforced by the limited information available on nutritional status, which indicates a current national average of less than 1,900 calories per day (of the internationally accepted minimum requirement of 2,200). The typical diet consists of maize, and/or cassava or wheat (depending on altitude), plus peas and/or beans, and sweet potatoes/yams/cocoayam (depending on altitude). The diet provides sixty percent of all protein requirements, mostly in the form of pulses but only 15 percent of all animal proteins. The diet contains only 10 percent of fat requirements.

Supplementary evidence on food production is the degree to which adult males migrate, either temporarily or permanently, to obtain work. Muramvya province, near Bujumbura, is experiencing a slight population decline, and in places along the crest nearly a third of all households are permanently or temporarily headed by women. Additional money for household purchases come from beer brewing, or the cash portion of wages in food-for-work projects (which themselves contribute additional food to the family's diet).

Annual wood use per capita is variously estimated at 0.5 to 2.0 steres¹⁾, with the low estimate probably being more accurate. Wood is the primary fuel for cooking and heating, and fuelgathering is a very time consuming activity for women. If dead wood for gathering cannot be found, very poor families will use animal dung or agricultural residues. Others use wood from trees planted around the house and/or purchase a tree (a large one costs up to \$5.50 and will last a family a month).

1) A steres equals one cubic meter of stacked wood.

The current national average life expectancy at birth is 45 years. Nearly three children in 20 will die before they are a year old, more than a quarter of the survivors die before they reach five years of age. Roughly 28 percent of the deaths of children two to four years old are attributed primarily to malnutrition. Medical center records indicate that the incidence of infectious and parasitic diseases is 47 percent among this age group.

A central tenet of traditional belief is that one lives on through one's children. In addition, children represent a "social security system". A woman's value is closely associated with her fertility. Daughters do agricultural work and go to their husbands' families upon marriage. Sons, beyond the one who inherits the land, are supposed to go elsewhere to find work and/or land. The traditional concepts also work against family planning in that it is believed to be more difficult to bring about change than to let things remain as they are. In addition, Burundi has a very high percentage of baptised Roman Catholics. We expect to gain much information on the knowledge, attitudes and practices regarding family planning from the forthcoming Health/Family Planning survey. A survey done in 1977 indicates between half and three quarters of the population say they have no knowledge of contraception, but rather rely on separation or abstinence. Although women's attitudes are influenced by their husbands and their own level of education, women appear to desire quite strongly more information on reproduction (particularly in the context of dispensaries and foyers sociaux).

About one child in five goes to a government run primary school and another 45 percent of 6 to 11 year olds attend the "Yagamukama" basic education centers. It is very much the exception that any child goes beyond primary school -only 3 percent attend secondary school. Only 25 percent of people 15 and over can read in Kirundi and most of these are in the younger brackets of this age group.

D. THE CAUSES OF POVERTY

The long run consequences of population growth, land deterioration, deforestation, and food availability reinforce one another over time. A stimulation exercise prepared for a part of Kivu province in Zaire and applied to Rwanda shows that population pressure and erosion will cause a rapid decline in per capita food production in those areas by 1990. Similar conditions will probably prevail in northern and central Burundi by that time, and the forests will have vanished. The pre-harvest hungry season appears to be growing more severe, even in years of good rainfall. The average annual number of measles deaths has increased substantially since malnutrition weakens the body's ability to combat the disease.

1. The Extension Dilemma: Transfer and Adaption of Technologies in Agriculture, Health and Rural Development

Extension, or delivery systems, are the key to rural development in agriculture, soil conservation, health, energy and rural development, in that they provide a means of transfer and adaption of technologies, knowledge, and supply of inputs. The general technology for increasing food crop production, improving nutrition, and maintaining soil fertility exists, as does that for expanding the use of peat as a substitute for firewood. The question remains of how to reach rural households and how to help them meet their basic needs with technologies that are sociologically and economically appropriate. Women produce almost all the food and use almost all the firewood consumed by the family; yet, women are not being reached effectively by GRB extension programs for food production.¹⁾

a. What is there to Extend ?

There is, in agriculture, an almost total lack of farming systems research, and of operational research in actually having farmers test new varieties of food and cash crops, or techniques for growing them, on the farmers' fields. No GRB organization yet organizes extensive tests of proposed innovations for economic feasibility and social acceptability. The Foyers Sociaux concentrate on health, nutrition and child care. Very little of their curricula are devoted to food production. Proposed innovations are not examined as to how they affect the entire farm enterprise. Almost no work is done on cropping systems and their relationship to the maintenance of soil fertility. Relatively little accurate microeconomic information has yet become available and national food crop production statistics are only rough estimates. Consequently the extension worker does not have much relevant material (physical or informational) to use in working with the rural population and the planner has little reliable data to work with in preparing projects.

1) The Foyers Sociaux concentrate on health, nutrition and child care. Very little of their curricula are devoted to food production.

Although we are awaiting the health sector study, it appears that "extension information" on social and preventive medicine are used only in teaching in the foyers sociaux and in connection with Mission run health clinics non formal education activities. The extension materials are largely developed by the teachers/mission personnel themselves.

Work done on the Peat I project indicates that extension material must be developed and programs conducted if the alternative energy programs are to succeed.

b. Extension Systems: Staffing and Training

A truly nationwide extension service does not yet exist for food crops in Burundi and personnel trained in agriculture are scarce. Until recently, extension organizations have concentrated on cash crops or on area or crop specific projects financed by the donors. The first large food crop project (AID's Basic Food Crops) began in 1980. The extension services are quite effective in cash crop production and area specific agricultural projects because sufficient human and financial resources are made available. Otherwise the extension organization is fragmentary and ineffective because most individuals have to serve as administrators, not demonstrators. The rural public health services are rudimentary for the most part and concentrate on curative medicine, although the Ministry of Public Health is moving to implement in the field its policy stressing social and preventive medicine.

In the agricultural sector, Burundi has a substantial group of middle level technicians and is training many more. The agriculture technical institute (ITABU) now has an enrollment of over 200. The technicians receive four years of good training in theory and classwork but they receive very little practical training or field work. Many graduates of ITABU feel that their skills are underutilized. The technicians have no transport and limited funds, equipment and supplies. Many of these people are not strongly motivated, but there are a number of exceptions, particularly in donor-assisted programs, where they are better paid and better supported.

Agricultural Assistants provide the mainstay of the Ministry of Agriculture and Livestock's extension system. They are primary school graduates with three years of post primary training. They coordinate four or five moniteurs at the zone or commune level and they provide some on-the-job training. Their activities are largely limited to cattle and crops. Agricultural Assistants are willing to work in rural areas but their formal training is probably insufficient. The lowest level of extension worker is that of moniteurs or encadreurs. Most have received only very limited on-the-job training after recruitment as primary school graduates. Each moniteur works

with the farmers on three to five hills. They are obligated to carry out policies of the commune administrator.

Extension work in nutrition, health and agriculture is carried out by the Ministry of Social Affairs in the Foyers Sociaux and also in formal and non-formal education programs run by the Ministry of Education and various missionary groups. The forthcoming Health Sector Survey Assessment should give AID/Burundi a better picture of rural public health programs.

c. Provision of Inputs, Services, Storage and Marketing

As mentioned above, agriculture inputs, storage, and marketing services simply do not reach the rugos, with the exception of specific cash crop and area development projects. Ways and means of solving these logistic difficulties must be found, and the solution should not strain limited GRB human and financial resources but should encourage true local participation. One possible solution may be expansion of cooperatives.

Cooperatives have been developing apace in Burundi with strong GRB support. The International Labor Organization began a project in 1975 to train cooperative personnel and the UNDP has two zones for pilot cooperative programs. A provincial cooperative union has been established in Ngozi province. There are 82 cooperatives, 37 of which are attached to the national level Burundi Cooperative Federation. Other thriving cooperatives have been supported by missions. Most are consumer cooperatives selling soap, sugar, matches, cloth, and so forth, but many also collect produce ^{from} farmers and sell it. The ILO project has been extended until 1983. It includes the development of a national transporting and purchasing center in Bujumbura to centralize purchase orders from cooperatives for agricultural produce as well as consumer items, and also to undertake the purchase, storage, transport, and distribution of basic food supplies from surplus to deficit areas. To date, the progress of the cooperative movement has been remarkable.

d. GRB Rural Development Programs

GRB integrated rural development programs often include resettlement in the lowlands and or regrouping into villages to facilitate the extension and provision of health, educational and other services. For additional information, see FY 1982 CDSS and Bujumbura separate cable reporting on rural development.

e. Conclusions

AAO/Burundi thinks that the eventual effectiveness of future development programs in Burundi hinges upon:

(1) Obtaining a clear understanding and detailed knowledge of the local socio-agricultural milieu.

(2) Establishing extension (knowledge transfer) systems which maximize family-to-family contact, particularly through the use of local demonstrators/teachers, with particular emphasis on women;

(3) Establishing supply as well as distribution, and marketing networks through local cooperatives, education and health programs that make the best possible use of local talent and in which the individual has some voice as well as a belief that he is a shareholder in the outcome.

2. Agriculture

Burundi's land use is divided among crops (37 percent), pasture (22 percent) and forest (5 percent). Wasteland, urban, and other account for 36 percent. In general Burundi has a tropical climate with two dry seasons, a long dry season from May through September/October, and a brief dip in rainfall in January/February. Rainfall patterns are more evenly distributed in the north and there is a high correlation between altitude and increased precipitation. In Ngozi province, precipitation exceeds potential evapotranspiration for almost eight months in a normal year, while the situation is reversed in Bujumbura and the Imbo plain.

Burundi can produce a wide range of food crops thanks to its varied ecological zones. Food crop production accounts for 50 percent of gross domestic product. The most common crops are listed by ecological zone in Annex B. Burundi's soils are better than in most countries of Africa, but average yields are very low. In addition food production of common subsistence crops has not kept pace with population during the 1970's. The reasons for the decline of per capita food production are probably degradation of the soil through loss of nutrients and organic matter, caused by insufficient fallow periods and poor cultivation techniques as well as poor seeds and plant materials. Seeds for open pollinated food crops must be replenished frequently. Since land availability is limited in the highlands, farmers must obtain better yields to increase production in order to meet subsistence requirements (let alone produce any surplus for sale).

Substantial increases in agricultural production should result from improved management techniques (e.g. use of green and animal manure, interplanting), well-adapted, improved plant varieties, and specific measures to maintain ground cover and reduce erosion. Research to breed disease resistance should reduce losses caused by plant diseases and pests.

a. Cash Crops

The major cash crop in Burundi is coffee, particularly the Arabica grown in the highlands. Production has usually been at about 20,000 to 23,000 metric tons, with a high of 28,139 MT in 1974/75, and 25,950 in 1978/79. Crop year begins in April. The low range has been 16,924 MT in 1975/76 and the 1979/80 crop is estimated at about 18,400 MT. Burundi planted many additional coffee trees during the coffee price surge of 1976/77, which should begin to produce in the early 1980s. Annex B gives percentages of coffee crop produced by province through 1978.

Tea production has increased from 147 MT of dry tea in 1970 to about 1,450 MT in 1979. Cotton production (seed and fiber) has decreased from 11,997 MT in 1970 to 8,361 MT in 1978 (with a low of 4,118 MT in 1976) when the yield was only 459 kg/ha. Rice production increased from 3,000 MT in 1971 to 7,900 MT in 1978.

b. Institutions

ISABU, the Agricultural Research Institute in Burundi, has only recently begun intensive work on subsistence food crops. It is doing a very good job of completing a soils map of the country and has done excellent biological research on cash crops. ISABU relies heavily upon Belgian technicians, and has stations in each of the major ecological zones. Approximately half of ISABU's staff presently work on some aspect of food crops. ISABU has good linkages with East African and other research organizations and has done substantial work in testing maize and wheat varieties. However, research on other food crops lags, and ISABU has not yet, for the most part, taken research "off the station" for trials on farmers' fields. It has not begun work on cropping systems, consecutive and interplanting rotations and crop associations, or on meshing the socio-economic aspects of the farmer's requirements with agronomic research. AID's proposed Small Farming Systems Research project, combined with ongoing studies such as the farm storage survey, could make a major contribution in the vital area of getting the knowledge to the farmer.

The Faculty of Agronomy at the University of Burundi was established in 1975 in Bujumbura with Belgian technical assistance (which presently covers 80 percent of the budget). The GRB rents a single building in downtown Bujumbura for the Faculty, which has no teaching laboratory or greenhouse facilities, and practical training for students has been tailored to fit the limited funds available. A total of 57 students are enrolled in the first two years and 49 in the last three years.

The program is very comprehensive and designed to produce generalists. Despite the lack of practical training, credit must be given to the Belgian teaching staff for the remarkable level of training that is provided under the less than ideal conditions.

c. Livestock

Burundi in the past was cattle country, but the population increase has put strict limits on livestock production and has caused severe social and economic strains. Cattle are considered primarily as a store of wealth and a status symbol rather than as a productive asset. Farmers recognize the value of manure, consume milk (meat very rarely), and use or sell the hides. Few means are available to improve animal health and feeding. The total number of cattle was estimated to be 683,000 in 1970 and 819,000 in 1978, with less than a million sheep and goats. Unofficial estimates indicate however, that the cattle population may have dropped to less than 500,000 at present.

Livestock productivity is low because of the shortage of feed. Privately-owned animals overgraze communal pastures, destroying the more nourishing grass varieties, which along with repeated burning has led to rapid deterioration of soil and pasture quality. Fodder is short during the dry season, and poor health limits the increase in livestock. East Coast Fever causes high calf mortality, brucellosis is widespread and causes low fertility, and beef measles may affect 90 percent of the animals. Poultry production is also low, and both poultry and eggs remain luxury items. This will continue until feed grain availability increases sufficiently to reduce costs.

3. Soil Conservation - Forests - Fuel Availability

Less than five percent of Burundi's land remains in forest from the heavy forest cover that existed in the seventeenth century. AID currently estimates all types of forest, including depleted forest and new plantations, at about 110,000 hectares. Even with current GRB reforestation programs (see below), it is estimated that tree cover will be reduced to 40 percent of present levels by 1986. (It takes 5 to 8 years for trees to reach exploitable size). The forests play a most valuable role in regulating water resources and in soil stabilization of upper regions and steep slopes. The heavy population density has resulted in marginal lands, some sloping more than 45 degrees, being brought under cultivation, thus encouraging erosion. Burundi's soils are relatively stable and permeable, permitting the cultivation of slopes that could not be tolerated in most places. Interplanting of small fields, harvested over time

and not weeded much, reduces the time period during which soil is bare. Cultivation and weeding is done with a hoe, usually hoeing vertically on a slope, which can be quite devastating. Coffee, tea, and bananas afford good protection if mulched or if they are not clean-weeded.

The heaviest users of wood for fuel are the rural population and the urban poor. Various estimates on rural usage exist. It is likely to be about 0.5 steres or slightly more per person. Urban fuel consumption is usually in the form of charcoal, and inefficient production methods result in consuming seven kg. of wood to produce one kilogram of charcoal.

Energy availability also puts limits on small-scale industry. Burundi could produce cement, bricks, and roof tiles locally in greater amounts than at present if energy resources were available for their manufacture. At present they compete with cooking needs for wood, while trees are in fierce competition with food and export crops for available land.

The alternatives available to Burundi to meet current energy needs while preserving the minimum tree cover necessary for environmental protection are either peat or imported fuels. At this time Burundi has more than four million tons of peat reserves proven in detailed surveys, three million of which are located in densely populated Ngozi province.

The city of Bujumbura uses 94 percent of the electricity provided by the electricity utility, which obtains its electricity from the Ruzizi I hydroelectric plant in Zaire. Only 11 percent of the urban poor have electricity in their houses. Most of the rest is consumed in Gitega. Current in-country generating capacity consists of 0.5 Megawatts at Gitega, 0.3 MW at Bururi and a 2.0 MW standby facility in Bujumbura. Some electricity is generated by small, isolated institutions at tea plantations and religious missions. Burundi does have considerable potential for domestic hydroelectric power generation using small installations, but this does not represent a short or medium term answer to most energy needs given the time and capital required to construct dams, establish a nationwide power grid, and import the necessary appliances.

Petroleum consumption is limited by high transport costs, transportation bottlenecks, and soaring international prices. Petroleum import volume grew by 9 percent in 1978 and 6 percent in 1979. A gallon of gasoline now costs \$4.62/ U.S. gallon. Petroleum prices and availability have had a significant impact on inflation, with nearly half 1979's rise of 28.4 percent in average import prices due to increased international transportation costs and another quarter of the increase to the higher unit cost of imports.

In 1973, Burundi paid 154.5 million Burundi Francs for 19,600 metric tons of POL products. In 1978, Burundi imported 27,300 MT and paid 644.3 million Fbu or about \$7,195,000. While the quantity of fuel imported in recent years has remained relatively constant, the costs have soared.

4. Population

Burundi's food production problems, and soil/forestry/fuel problems are exacerbated by an expanding population, growing at a rate variously estimated at 2.0 to 2.7 percent. (See section I/B/2 above on demography).

Burundi's average population density, using the 1979 census, is 161 people per square kilometer. Provincial population densities are greatest in the north and central portions of the country. Four communes in Ngozi have about 370 inhabitants per km², while Nyanza-Lac in southern Bururi has 17.8 people/km². The population per square kilometer of agricultural land (crops and pastures) was estimated at 263 in 1978. This works out to a nationwide average of 1.06 people per acre, with the northern half of the country faced with the more severe problem.

Population Density in Burundi

1979 and 1987

<u>Province/district</u>	<u>1979 population</u>	<u>1979 density people/km²</u>	<u>growth rate %</u>	<u>1987 population</u>	<u>1987 density₂ people/km²</u>
Bubanza	329,060	121.3	5.8	516,607	190.5
Bujumbura (without city)	319,270	251.4	3.8	430,266	338.8
Bururi	457,510	92.3	2.0	536,046	108.1
Gitega	682,990	198.1	1.3	757,358	219.7
Muramvya	380,320	246.0	0	380,320	246.0
Muyinga	546,390	147.7	3.3	708,443	191.5
Ngozi	773,330	285.7	1.0	837,405	309.3
Ruyiga	392,000	68.6	1.3	434,672	76.0
Bujumbura City	141,040	-	5.0	208,380	-

Note:

Gitara (Commune in Ngozi Province)	57,250	371.8	1.0	61,994	402.6
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The table above projects population densities per square kilometer in 1987, using different growth rates for each province. Using the conservative population data in the census, a densely populated commune in Ngozi province will, by 1987, have 402.6 inhabitants per square kilometer, or 1,042.6 people per square mile, or 1.63 people per acre, in a region where villages are non-existent.

The principal reasons for rapid growth in Burundi and other Great Lakes countries are:

- recent mortality declines;
- a large number of people just reaching childbearing years;
- very high completed fertility rates¹⁾.

Although Burundi's rate of population growth is lower than in Rwanda or Kivu, we anticipate that in the short run the rate will probably increase before it declines. An important correlation of this growth is the factor of population momentum, which describes the phenomenon whereby a high rate of growth not only adds many people at the present time but also creates potential for a large number of births later on. Even if individual fertility were reduced immediately, the growth of population would continue for many years.

See section I/C for information on individual attitudes towards family planning and I/E for progress to date.

5. Health

As reported above, Burundi continues to have the relatively low life expectancy and high infant mortality typical of a "relatively least developed" country. Infectious and parasitic diseases are rampant. In 1979, the infectious disease causing the greatest mortality among children was measles, closely followed by whooping cough, gastric diseases due to diarrhea and parasites, and malaria. The principal causes of morbidity reported to health facilities are malaria, influenza, measles and diarrheal diseases. The prevalence of enteric diseases reflects the low level of environmental sanitation and lack of access to clean water supplies. Outbreaks of cholera have occurred with some regularity.

The diet of the average Burundian is very low in animal protein and particularly in fat. Caloric intake is below accepted international minimum levels, and dietary deficiencies are particularly noticeable among pregnant and lactating women and children who have just been weaned. About 28 percent of the deaths of two-to four-year olds are attributed primarily to malnutrition, while 20 percent of deaths of 5 to 14 year olds are caused by malnutrition.

According to 1979 figures Burundi has one doctor per 37,240 people, but they are heavily concentrated in the Bujumbura area. There is one para-medical nurse or assistant nurse for every 5,210 Burundians. In addition to 19 hospitals, 74 dispensaries and five health centers run by the Ministry of Public Health, another 57 medical facilities almost entirely in rural areas,

1) Number of children a woman will have during her lifetime.

are administered by Catholic and Protestant Missions. Mission dispensaries provide curative services, and weekly consultations for mothers and children which emphasize nutrition, hygiene and basic information on the fertility cycle. Mission personnel also give health lectures at dispensaries and foyers sociaux.

6. Transportation

a. Regional

Landlocked Burundi must import industrial products as well as export its cash crops. A problem typical of those caused when disadvantaged geographic location combines with political upheaval was the acute cement shortage of 1979 which, when combined with a petroleum shortage, resulted in the modernised sector of the economy grinding to a near standstill.

The nearest ocean port is 1,400 kilometers from Bujumbura, using lake steamer and railway to Dar-es-Salaam. It is more than 2,000 kms via Rwanda and Uganda to Mombasa. Burundi's external traffic requirements will increase to 235,000 metric tons of imports and 62,000 MT of exports by 1990, compared to total external traffic of 131,000 MT in 1977.

In 1977, 78 percent of Burundi goods were shipped via the southern route. Problems encountered included:

- The antiquated arrangement of the Lake Tanganyika port of Kigoma (Tanzania), its lack of equipment and labor problems;

- The operational deficiencies of Tanzania Railways caused by weak management, poor communications, and a shortage of rolling stock; and

- Lengthy traffic delays at Dar-es-Salaam.

About 22 percent of 1977 goods transited the northern route overland by truck to Mombasa. Although the percentage of traffic using this route has been increasing, it, too, has several problems:

- It is far more expensive than the southern route;

- Deterioration of the Uganda railways and poor coordination with Kenya railways prevent use of rail shipments which are less expensive than truck transport;

- Kenyan and Ugandan roads have deteriorated markedly; and

- Administrative procedures for customs formalities, border charges, loading, and vehicle licensing are cumbersome in each country.

The diversion of Zambian traffic to Dar-es-Salaam, the Uganda-Tanzania war and civil disaster in Uganda have all posed dramatic, and costly, additional problems.

Air freight to Europe is an extremely expensive proposition and can be considered for light, high-value and perishable items only. But in times of crisis, air transport to an Indian Ocean port is the only alternative which can overcome blockages and is fairly cost competitive with trucking goods via the northern route.

Various alternatives are explored in an IBRD paper¹⁾. The basic conclusion from the Burundian point of view is that the southern lake-rail route is the most economical route, but that it needs major improvements in management and coordination, including accelerated implementation of the EEC's Kigoma port project, improvement of lake transport, adequate warehousing, and, in the long run, improvement of Tanzania Railway Corporation's Central Line.

b. Domestic Transportation

Much of Burundi has a fairly good road network, particularly in the Gitega-Ngozi area, when compared to many African countries. Area and/or crop specific development projects have contributed to the development of these road networks. There are about 5,300 kms of roads and tracks in Burundi: 545 kms of national routes (many of which will be paved soon); 1,165 kms of routes of general interest; 1,274 kms of provincial roads; and 2,160 kms of unclassified communal tracks. Most provincial roads in good repair can take light trucks. Communal roads are often rough tracks which even four wheel drive vehicles may not be able to use.

In December 1978 there were only 3,600 vehicles in Burundi, mostly based in Bujumbura. Only ten percent were trucks averaging seven tons, with pickup trucks, may account for 25 percent of vehicles registered. There are about 1.3 vehicles per 1,000 people. Marketing bulk food crops is an expensive proposition with so few vehicles and the very high fuel costs.

With foreigner donor assistance, the GRB is revamping its road maintenance program after many years of neglect. Heavy machinery is used to remove slide debris and local laborers do drainage and minor repairs, using one worker per kilometer, plus a supervisor every ten kilometers. The highways department is training these supervisors, both in special courses and on the job.

Recently, the GRB has devoted a higher priority to maintaining rural roads than it did in the past and is interested in developing a labor intensive road construction program in addition to its more traditional road improvement activities. There are two pilot projects, a Belgian-financed road in a tea growing area and USAID's rural road (Route 84) project.

1) IBRD. "A Report on the International Transportation Bottlenecks Affecting Rwanda and Burundi." Washington D.C., December 1980.

c. Markets and Distribution Systems

Burundi does not possess market towns or even well-developed periodic village markets in the West African sense. Most centers have grown up around government administrative posts and/or missions. Rumonge, the third largest town in Burundi, is a strategically located market on major transportation routes and is one of a series of centers that now appear to be growing in importance, thanks to wholesalers trading with Bujumbura. Most rural markets are held weekly, or twice a week at most, but markets are often at a considerable distance from the producer. Price differentials between Bujumbura and the hinterland are substantial. The most frequently cited reason for the differentials is the lack of competition among market intermediaries, but high transportation and storage costs (and losses) are also a factor.

It should be noted that most area and crop specific development projects have their own marketing system built in. These are comparatively well developed and sophisticated particularly for coffee and tea. Perhaps five to seven percent of food production is marketed in most parts of the country. The producers headload (or have others do the work) the crop to the nearest road, where they wait for a traders' truck to come by. Farmers do not get very good prices.

Government organizations distribute fertilizers and agricultural chemicals to farmers. Ordinary farmers use an insignificant amount of chemical fertilizer, even though they can buy it at 50 percent below cost. This is ascribed to the lack of an effective extension organization, absence of efficient fertilizer procurement, and marketing mechanism to allocate fertilizer distribution through private commercial channels.

E. PROGRESS AND COMMITMENT

1. Commitment of Government Resources to Rural Development

President Bagaza has repeatedly reaffirmed his commitment to Rural Development to benefit the entire rural population. The Third Five year plan, 1978-1982, was the first true development plan in Burundi's history. It was based on newly revised national accounts and on an integrated approach to development using a simple econometric model. It is a sliding plan that is extended twelve more months in annual revisions, with indicative targets for the private sector.

Objectives for the public sector during the first year are set when the "Extraordinary Budget"¹⁾ is prepared. The plan targets do indicate a commitment to the poor majority. Food crop production is considered an absolute priority, with a projected average annual growth rate of 3.1 percent. Export crops should increase at a rate of 5.7 percent per annum as new plantations of coffee start producing by the end of the original plan period. Tea production should also grow rapidly. The plan projects growth rates in manufacturing and construction at ten percent per annum.

Up through 1975 (under the First Republic) the GRB spent very little on economic development. The "Extraordinary Budget" amounted to FBu 108.3 million in 1970 (or 0.5 percent of GDP) and FBu 331.1 million in 1975 (or 1.0 percent of GDP). In 1976, it totalled FBu 1,015.1 million (or 2.6 percent of GDP) with agriculture alone accounting for FBu 246.0 million. The Extraordinary Budget has grown apace, reaching FBu 3,258.0 million in 1978 (or 5.9 percent of GDP) and the 1981 budget projects Extraordinary Budget expenditures of FBu 6,624.7 million (\$73.98 million) out of which FBu 1,366.3 million will be for agriculture. (See Annex A for additional budget data).

Ordinary Budget expenditures for social services²⁾ were only 3.1 percent of GDP in 1970 and 2.8 percent in 1976, but have increased to 4.4 percent of GDP in 1979. Ordinary Budget expenditures on "economic services"³⁾ were only 1.3 percent of GDP in 1976 and about 1.7 percent in 1979.

A significant complicating factor is the lack of trained personnel. The Ministry of Plan has had difficulty in filling all positions calling for expatriate advisors, let alone finding trained Burundian staff. In addition, most ministries have not yet developed strong and well-staffed planning units to design projects and oversee program implementation.

Nonetheless, implementation of projects seems to be equitable in terms of those who benefit. There is no direct statistical evidence of skewing resources towards one group or another in subsistence agriculture. Cattle owners do benefit disproportionately in the livestock sector, however. Also, cash crop growers have in the past received extension resources, credit, and inputs in the agriculture sector. (This probably reflects the GRB concern with revenue

1) The "Extraordinary Budget" is financed by donors and sources other than regular receipts and taxes. It includes some military expenditures, the road fund, and certain debt amortization payments, but it is, more or less, a capital budget.

2) Education, public health, social affairs and youth, sports, culture.

3) Agriculture, livestock, rural development, Public Works, Capital development and housing, transportation, communication, mining and energy.

generation and the interest of major donors in increasing production of tropical perennial crops to meet the needs of the European market).

2. Agriculture

"The implementation of our projects (in food production) conditions our future and our survival. The prosperity of this country and the Burundi people depends all alone on agriculture ...

"We therefore request that in agriculture and livestock every farmer make an effort to produce large quantities of food crops in order that there will be enough to eat and to sell in other parts of the country. Thus one will bring about the development of the economy of our country".

President J.B. Bagaza, New Year's Day
Message to the Country, January 1981.

"Increasing food crop production is an absolute necessity, there is a need to organize the population in order to make better use of markets, it is necessary to teach them elementary techniques to increase yields in their fields (fallow, clearings in banana plantations, use of organic fertilizers, use of improved seeds ...)"

Minister of Agriculture and Livestock
Etienne Baradandikanya
Le Renouveau, 14 January 1981.

There is no doubt whatsoever regarding the GRB's, and especially the President's, commitment to agricultural and rural development, and that the Burundi Government's thinking has undergone a radical change during the past few years.

The commitment is not yet fully reflected however in statistical data, other than in estimated budget expenditures which are sometimes not reached. Although subsistence agriculture accounts for over 50 percent of the GDP and more than 90 percent of the active population engage in it, subsistence agriculture has grown by considerably less than two percent. An index of total food production per person used by the Ministry of Agriculture equalling 100 in 1970 declined to 94.1 in 1977¹⁾. Between 1970-1972 and 1975-1977, the increase in cassava, maize, white potatoes, peas, beans and sweet potatoes, according to Annex B, was a total of 8.4 to 10.1 percent over the six years. Wheat production increased by 13.7 percent during the same years. A 2.25 percent rate of population would result in a total increase of 14.2 percent over the same six years.

1) Agricultural statistics vary widely in Burundi, but stagnation of food production is evident. However, total production has very little relevance for food production and consumption patterns of rural farm households when less than 10 percent of food production is marketed.

The crop harvested in December 1979 - January 1980 was mediocre due to poor rainfall, but Burundi was extremely lucky that the rains lasted into June 1980. This resulted in good harvests when combined with a major push to grow more food, utilizing Ministry of Agriculture, Government, and Party personnel as mobilizers. The "little rains" of 1980 started in early September and have continued without a break, contributing to what should be an excellent crop. There were, in May-June, small surpluses of beans and some other crops in Muyinga province and southern Bururi. The densely populated provinces (Ngozi, Gitega, Muramvya and Bujumbura) are the areas which are usually deficit.

Agriculture and rural development programs are particularly hard to organize and implement in least-developed countries and Burundi is no exception to the general rule. Production projects require that the necessary institutional apparatus be in place, that research results be available, that there are sufficient trained personnel, and that logistic support is organized to supply inputs and market outputs. Burundi is still some distance from being able to implement such programs successfully, but we expect that medium size food production projects should be possible to begin within four to five years. Spending on agricultural development will accelerate as projects are designed and implemented¹⁾. In absolute terms, the GRB budget commitment to agriculture has grown from 3.1 percent of operating budget in 1976 to 4.6 percent in the 1980 budget, and from 10.1 percent of the extraordinary budget in 1975 to 15.8 percent in the 1980 budget and 20.6 percent in 1981.

ISABU (the agriculture research institute) has, in a four year period, completely reversed the priority formerly given to cash crops, and has major ongoing food crop research programs. It is moving into on-farm research and the linkage with extension in AID's proposed Small Farming Systems Research project (see I/D/2 for additional information on ISABU's progress).

The GRB has been most forthcoming in providing cash for accelerated implementation of Basic Food Crops as well as nominating personnel. This project will provide foodcrop seed for the high altitude zone, while other GRB programs will provide improved seed for other programs.

1) It takes about 2 years to plan an agriculture project before it is implemented, and research projects take 4-7 years before results are ready to extend to farmers.

The President himself has stressed the need to increase the enrollment of the Faculty of Agriculture and expand enrollments generally. (ISABU has already done so). GRB extension efforts have been quite effective in the case of coffee and area specific rural development crops. The poor 1980 coffee harvest can be blamed on: (a) lack of rainfall; (b) lack of fertilizer and (c) the cyclical productivity of coffee trees. The fertilizer shortage can probably be laid at the door of soaring prices and transportation problems during the Tanzania/Uganda conflict.

3. Forestry, Soil Conservation/Energy

"In order that agriculture continues to make progress, mobilize yourselves to fight against erosion by planting trees, by digging anti-erosion ditches, by all of you taking care when burning brush ... Erosion is the principal enemy of our soil, we must combat it with all our strength because it is the source of poverty in the country, it is what causes famine".

President J.B. Bagaza, New Year's
Speech to the Nation, January 1981.

"The deforestation of recent years has had as a result the present shortage of firewood and charcoal. To avoid this dangerous phenomenon of deforestation, it is important to intensify the use of peat. For that, it is necessary that it is available to the client in good quantity and acceptable form".

Minister of Energy and Mines, I. Nyaboya,
Le Renouveau, 8 January 1981.

The GRB is fully aware of the importance of the role of afforestation in conserving soil and the fact that, at present rate of cutting, the country will have no trees left in five to eight years. The GRB declared 1979 as the "Year of the Tree" and 1980 as the "Year of the Soil Conservation". It has launched major afforestation programs with the objective of establishing up to 240,000 hectares of new plantations of fast growing trees. This will meet the need for pole and construction requirements, most urban needs (assuming increased use of peat), and rural firewood requirements in areas near plantations. The GRB also encourages farmers to plant trees on their homesteads to meet family fuel requirements as well as develop communal forests to the same end.

The GRB has obtained the assistance of several donors in establishing new plantations and starting to launch new tree nurseries in nearly 40 percent of the country's communes (World Bank, European Development Fund, French Technical Assistance, a Belgian-Saudi Arabian project). These projects should enable the GRB to reach quickly a forestry plantation level in excess of 5,000 hectares a year.

In addition, the GRB has encouraged tree planting by private individuals on their own land, establishing new communal forests, and rejuvenation of

approximately 25,000 hectares of old communal eucalyptus plantations. Using its own resources, the Department of Water and Forests has launched a modest program to cover several hundred hectares. Seedlings are sold at cost (\$0.04 per tree) to individual farmers and communities. An associated extension effort will encourage private tree planting as well as train farmers in planting and growing techniques.

The major visible efforts of soil protection work are contour trenches cut across grazing land in various parts of the country and a few patches of trees planted in steep areas or on rocky hilltops. Neither terracing nor vegetative bank control are applied consistently in areas that have the greatest erosion hazards. In most cases, terracing of pastures is only necessary because communal pastures are overgrazed.

The GRB has launched a major program to develop the use of peat as alternative fuel. The army and many other institutions use peat as fuel, while Peat II will contain major peat production and marketing initiatives in addition to improvement of ONATOUR's institutional capability. Conservative estimates of peat production amounted to 10,000 metric tons in 1980 and it is expected to reach 15,000 metric tons in 1981. Peat has been "selling like the proverbial hotcakes" in Bujumbura since the great electricity blackout that lasted fourteen days in October 1980. As outlined in Annex C, several other donors give assistance for peat development.

4. Health

"With the establishment of the Second Republic, a new policy line was defined which aims to give maximum coverage and priority to disadvantaged rural zones. This new approach clearly requires integration of preventive medicine with curative medicine".

Fidèle Bizimana, Minister of Public Health, interview in Le Renouveau, 11-12 January 1981.

The Ministry of Public Health has adopted a policy of emphasizing social and preventive medicine and has reduced the previous overwhelming stress on curative medicine. One of the key elements in this is the expanded immunization program against childhood diseases. The GRB started the program with UNICEF and WHO support in a pilot district in June 1980 and AID plans to contribute AIP program funds in FY 1981.

Ordinary budget expenditures on health have not fluctuated much as a percentage of the budget, and are estimated at 5.5 percent of the 1980 ordinary budget. Medical supplies and equipment are limited. More than half of medical personnel (and many of the facilities) outside Bujumbura are provided by missionaries. The GRB, however, has plans for construction of substantial numbers of fixed health facilities.

Available statistical indicators show a drop in the crude death rate from 28 per thousand in 1960 to 20 per thousand at present, with a consequent lengthening of life expectancy. The ratios of medical personnel to the population at large have also improved considerably in recent years. Although many M.D.'s are still in Bujumbura, there was one physician per 59,000 people in 1970 and one per 45,430 in 1975. The "nursing person" ratio (which includes practical and assistant nurses) dropped from 7,730 people per nurse in 1970 to 7,500 Burundi in 1970 and 6,420 people in 1975. The numbers of doctors and other personnel in the country should increase as the university's faculty of medicine expands and as the missions train more paramedical personnel through their programs.

It will take time for decreases to show in infant and child mortality rates. These changes will begin to occur as the inoculation programs take hold and the infant and child mortality rates will drop as diet quality and environmental sanitation improve.

5. Population

The GRB has adopted an official policy of "child spacing" for family planning. In addition, during the past 18 months we have witnessed a growing concern about the consequences of population growth on food availabilities and the costs of providing social services. GRB officials have as individuals expressed the need to "sensitize" the rural population to the need for child spacing. Articles have appeared in the local press regarding the consequences of unchecked population growth.

It should be anticipated, however, that the population growth will increase somewhat in the middle term as death rates decline due to improvement in environmental sanitation and inoculation programs. We anticipate that the psychological switch to smaller family size will not occur before it is demonstrated that more children will survive due to improved maternal/child health care.

Policy making on population matters is, at present, the responsibility of the Ministry of the Interior (which conducts the census). The Minister of the Interior has recently agreed to permit establishment of a non-governmental family planning organization in Burundi which would receive assistance from a

voluntary agency such as IPPF or Pathfinder. The Minister is interested in having a RAPID presentation done on the consequences of high population growth rates in Burundi. The first visit of a RAPID staff member will occur in February.

The Ministry of Public Health has also given evidence of becoming very interested in child spacing and family planning. They concurred in the Scope of Work for an AID-financed health sector assessment which includes family planning. The GRB is providing an MD with family planning training to work with the team. This assessment will eventually provide the basis for proposed AID health projects with maternal child health and family planning components. The Ministry of Public Health sent four of its officials to attend FY 1980 family planning conferences conducted by Johns Hopkins University School of Hygiene and Public Health (JHPIEGO). Four other officials have already been nominated to attend similar conferences in FY 1981. JHPIEGO doctors have installed endoscopic laproscopator equipment in the nation's main hospitals and trained personnel in its use.

The GRB has just signed a substantial UNFPA maternal child health project with family planning component valued at \$1.3 million and is moving ahead with its implementation.

6. Education

The GRB has undertaken massive efforts in education during the past four years, consistently spending between 17 and 22 percent of its ordinary (operating) budget and 5.1 to 6.6 percent of its extraordinary budget on education. Education planning in Burundi is carried out by a department in the Ministry of Education. It is adequately staffed, but lack working material and has insufficient transport for field work and surveys.

Primary education has undergone a radical reform to introduce literacy in the local language and reorient the curriculum to make it relevant to the rural milieu. In 1977/78, the enrollment in Government primary schools was 23 percent of the six-to eleven-year olds. Less than 10 percent of primary school-age girls attend government schools. The GRB plans to expand primary school enrollment to 28 percent of the relevant age group before the mid-1980's and shows every sign of meeting its target.

Secondary school and university level enrollments, at three and 0.5 percentage of the related age groups, are among the lowest in Africa. Technical and other types of education have been growing very rapidly. The GRB has launched a major effort to train secondary school teachers in three critical areas: French/Kirundi, Mathematics/Physics and Biology/Agriculture.

The GRB has determined that in order to meet its manpower needs, technical education has to be rapidly expanded and reformed. Changes proposed include:

- Establishing a minimum age of 15 years and raising academic standards required for entry into technical schools;
- Setting clear-cut objectives for each level and type of training and developing new curricula consistent with these objectives;
- Reducing the general education component in technical curricula to the minimum required for specific technical subject;
- Setting the duration of courses independently for each level and type of technical training;
- Introducing production oriented training directly related to future employment opportunities; and
- Initiating courses integrating specialized training and extensive broader technical programs.

The GRB has launched a major technical school expansion program using the IBRD Second Education Project. The project is designed to help train middle level technicians and skilled workers; implementing the education reforms and strengthening the Ministry of Education's planning, supervisory and project implementation skills.

Please see section I/B/3 for descriptions of the important non-formal education programs run by the Ministry of Social Affairs and the missions.

7. Human Rights

(See 1980 Human Rights Report to Congress. See Section E/1 above on GRB commitment to development).

F. ABSORBTIVE CAPACITY

1. Trained Personnel

At present, the GRB's ability to plan and implement projects is limited, particularly in agriculture and rural development, because of the shortage of key personnel. Spending on development programs has accelerated over the past few years (particularly in public works), but Burundi still cannot use promptly what resources are available. Managerial and technical skills are notably absent and the GRB has had difficulty in providing counterparts for project implementation. There are about 550 expatriate technicians in agriculture, but only 17 students are in their final year of agriculture at the University.

In conjunction with the Five Year Plan, the GRB and ILO completed a study of manpower requirements in May 1979, which are closely related to the development of the traditional sectors (particularly agriculture). If development occurs as projected in the plan, the relative importance of the modern sector should increase rapidly and jobs will expand much more rapidly than the number of people available to fill them. This is most clearly noticeable in the case of technical positions, particularly agriculture. The modern sector should account for 177,300 jobs in 1987 (compared with 100,000 at present).

At present Burundi is caught in a classic bind; it does not have the trained resources available to sustain a modern sector and its institutions have not yet developed sufficiently to absorb much of the manpower it does train at the secondary level. Institutional development and trained staff are not yet in step.

2. Financial Resources

Burundi has a responsible and conservative fiscal policy. It does a good job of increasing government receipts, given the fact that subsistence agriculture still plays such an important role in the economy. However, the amount of domestic financial resources available for development is overly dependent upon the size of the coffee crop (which is only partially amenable to human control in the short- to medium-term) and the fluctuations of the international coffee market (which Burundi cannot control). Given the country's resource base, Burundi should (and does) go out on the international money markets only rarely to obtain medium term commercial credit, and it should not borrow much more domestically than it is already doing. It is clear that Burundi will be dependent on grants and long-term, low interest loans from foreign donors to finance both the foreign exchange and the domestic costs of development projects. The level of foreign assistance that is forthcoming depends heavily upon the availability of well planned projects ready for financing. Sound project planning, of course requires trained (and experienced) personnel.

3. Other Donors

Burundi received a substantial amount of development assistance from other donors in 1980. Belgium, the largest donor, with \$28 million programmed for 1980 (\$5.4 million more than in 1979), provided assistance that included 166 advisors in education, agriculture and health. An additional 34 advisors

work in various GRB ministries. West Germany, the second largest donor with \$15.7 million in 1979 (1980 figures are not yet available), concentrated its assistance efforts in providing electricity and potable water supplies to Burundi. France (FAC), the third largest donor in Burundi, gave technical assistance and capital grants worth \$10.8 million, about the same as in 1979, with major programs in the transportation and agricultural (forestry and livestock) sectors. France also provided 157 advisors in all aspects of education and in various GRB ministries, teaching institutions, military and para-public organizations.

International organizations also provide substantial assistance. The United Nations Agencies provided roughly \$8 million in 1980 for personnel and advisors, often accompanied by small grants for supplies and equipment. Assistance concentrated in the health, education and agriculture sectors. Several UNICEF projects are directed toward women in development. An agreement for a Maternal and Child Health project with a substantial family planning component -- the first of its kind in Burundi -- was signed in December 1980. The European Development Fund (FED), provided approximately \$10 million in advisors and grants in 1980, about the same as in 1979. FED provided assistance to various agricultural activities, the main one being tea cultivation. The FED has been historically a major donor in the transportation sector. The World Bank gave IDA credits totalling \$37.7 million in 1980, including an urban development project, phase II of an education project and a telecommunications project. Ongoing World Bank projects include road maintenance, fisheries and coffee production.

SECTION II: AID ASSISTANCE STRATEGY

A. BASIC OBJECTIVES

The U.S. Government's interests remain essentially developmental and humanitarian in providing assistance to Burundi, one of the poorest countries in the world. The AID strategy in Burundi is designed to help the growing numbers of the rural poor cope with a declining food production system, a deteriorating environment and weak health system. If nothing is done, Burundi will face within the next decade, a classic "Malthusian" problem of food, land and fuel availabilities being insufficient to support the population. Programs implemented by AID are directed toward solving the land/food/population dilemma faced by the poor rural population described above with a small resource base within three interrelated areas of concentration:

- Food production
- Soil conservation/forestry/alternative energy
- Rural health/family planning

We believe that the will of the people and the Government exists to cope with, and eventually overcome the food/fuel/population problem. However, the GRB clearly needs (and recognizes the need for) external assistance to undertake the task that lies ahead. (See Section I/E).

The primary beneficiaries of AID assistance will be the rural poor along the Zaire/Nile divide and in the central plateau regions. This population will not be located in a single province or two. By 1987, when the planned agricultural extension programs are underway and research results are being disseminated to farmers, approximately 500,000 people in densely populated areas will benefit quite directly from one or more AID financed projects. About 60 percent of Bujumbura's population in 1987, or about 126,000 people including the vast majority of urban poor, will be using peat as alternative fuel. The spread effect, particularly from alternative energy and agricultural production projects may, eventually, benefit a million people.

Aside from Peat II and other activities with a PL 480 Title II component, the AID projects will not create much employment for men, thus reducing rural unemployment. The major beneficiaries will be the women who grow food. Since increasing the yields per hectare usually increases the amount of labor required per hectare of crop, employment of women and children will increase along with food crop productivity. However, men may follow the example demonstrated

elsewhere in Africa and decide to produce foodcrops themselves to sell, if the increased productivity is demonstrated as being significantly greater than the family's subsistence needs.

It is our belief that expenditures of about \$170 million over a decade would be needed to have a significant impact to improve the well-being of the beneficiaries described above. Section III below indicates planned assistance levels of \$141 million from FY 1981 through FY 1987, and bilateral assistance accounts for \$89 million of the total. At present, the U.S. Government is a relatively minor donor of economic assistance. Given the levels projected through 1987, the U.S. Government will remain a relatively modest assistance donor in total size. AID will take the lead as principal donor only in the field of alternative energy (peat and cooking stoves).

Consequently, AID assistance is tailored carefully in each sector to take advantage of complementary other-donor activities which enhance the effectiveness of AID's programs. Before beginning design of projects in a field, AID/Burundi has an assessment done of the sub-sector or sector (usually with assistance of outside consultants). This analysis of the problems, status and possible solutions is combined with an analysis of other donor activities before AID begins work in project design. Re-analysis at the PJD preparation stage, particularly of donor assistance, may result in major changes of project direction.

The AID strategy for Burundi is set within the context of U.S. assistance in the Great Lakes region - Rwanda, Burundi and the Kivu province of Zaire, which have similar ecological zones, rapidly increasing population and common problems of transportation links to the outside world and energy requirements.

Regional Assistance Programs

It has been suggested that programs be planned and implemented on regional basis, particularly now that a regional economic community exists (Economic Community of the Great Lakes Countries). We believe that AID must plan a coordinated and integrated strategy for Rwanda-Burundi-Kivu on a geographic bureau basis. Projects should be implemented bilaterally. Regional implementation of projects is probably not feasible, except when the regional organization, which already exists among the participating countries, proceeds beyond the current stage of institution -building. It is also not feasible from AID's operational and administrative requirements needed to implement programs that actually reach the rural poor. AAO/Rwanda and AAO/Burundi have proposed that a mini regional

development strategy statement be prepared for the Great Lakes countries. However, projects to provide major infrastructure requirements (road/hydro-electric power/fertilizer factory) require careful analysis and planning regarding their impact on all three countries. The IBRD's recent analysis of international transportation requirements contains many practical recommendations regarding transport of goods into Rwanda and Burundi. Information and project results should be exchanged, now that there is a regional agricultural research organization (based in Burundi). The Small Farming Systems Research project in Burundi will generate data and recommendations that should be useful to all three countries. Rwandan and Zairois agricultural researchers should be invited to conferences on maize or other crop research.

B. STRATEGY OBJECTIVES

1. Increasing the Food Availability to the Rural Poor Particularly in Densely Populated Areas

AID's ultimate objective in food production is the eventual implementation of specific food crop production programs to improve both food availability and nutrition for the rural poor, and when possible, in clearly identified geographic areas. As stated above, subsistence food production on a per capita basis has probably been declining. The key problem is reaching the food crop producer (see Section I/C and I/D/1 and I/D/2). We plan to start agricultural production programs in 1983 and it will be about 1985 before an integrated food production program can be mounted. Before such a program can be successfully implemented, key components and services must be available for use, such as relevant results from applied agricultural research, reliable supplies of seeds and other agricultural inputs, trained extension staff, farm to market roads, improved food storage and marketing capabilities. AID has decided that it should first implement highly concentrated projects tackling a limited number of specific components of food production programs first while institutional capabilities are being developed.

Other donors, particularly the IBRD, FED, French, Belgians and UNDP, are active in the food and cash crop production programs. Until recently, these donors concentrated primarily on cash crop production and livestock. Several area specific rural development programs using cash crops as a focus for varying degrees of integrated rural development have already started or are in the planning stage.

The Burundi Government's emphasis in agricultural research has recently shifted to food crop production. Among other donors the Belgians are the major donors regarding biological science skills, while the French are providing resources regarding soil. AID therefore intends to concentrate upon the socio-economic aspects of agricultural research and farming systems analysis which also includes testing biological research results on the farmers' fields and providing linkage to the extension system. (See Section I/D).

The Small Farming Systems Research project will set the direction of AID projects in food production for the next several years. It will also provide key inputs for planning agricultural assistance programs in the form of information and implementation of extension programs. West Germany, with some IBRD and other donor support, provides technical assistance in agriculture planning within the Ministry of Plan and the Ministry of Agriculture. In addition, some large agriculture and integrated rural development programs are planned by the Ministry of Rural Development in specific parts of the country.

AID does not, at present, provide direct assistance for agricultural planning in the form of personnel within the Ministry of Agriculture and Livestock. The shortage of trained Burundi personnel in agricultural planning and extension is a major bottleneck in implementing agriculture development projects. (See Section I/D and I/E). The Belgians and the UN play major roles in training agricultural manpower and AID builds training into all its projects as well as devoting the major share of African Manpower Development Program to agriculture. However, we are concerned that this effort is insufficient, and that the regionally financed AMDP cannot be expanded enough to meet the future requirements. AID/Burundi therefore proposes a sub-sector study of agriculture and rural development human resources be done in 1981-1982 to determine what could be done in this critical area to support our other agriculture sector programs.

Most assistance to agricultural extension is covered by the large area and/or crop specific projects enumerated above. Donors particularly active in this area, at present or in future, include Belgium, European Development Fund, IBRD, FAO (fertilizer and training). It is apparent, however, that the shift to food crops is new and that little attention has been given to reaching women food crop producers. In addition, the general logistic support of agriculture extension outside donor supported area/crop specific

projects is very weak. AID plans to start an extension project in 1983 which will concentrate upon supporting logistic capability of the Department of Agronomy and food crop extension involving women, thus filling a gap not provided by other donors.

Regarding seed multiplication, the Belgians have a project to establish small foodcrop seed multiplication centers scattered throughout the country and AID is concentrating upon supplying the high altitude food production program (an European Development Fund agriculture extension project) along the Zaire/Nile crest. The FAO and several other donors have programs involving distribution of fertilizer and other chemicals (for cash and food crops), but AAO/Burundi has decided that it should not enter this field because improved cropping systems (retention, interplanting, use of green and animal manure, etc.) and bred-in resistance to plant diseases are probably more cost effective solutions for the Burundi foodcrop farmer.

AID is currently financing a labor intensive reconstruction of a farm to market road which has a high internal rate of return. A baseline study is already underway which will permit evaluation of the project's impact on marketing farm produce and cash crops. Although the IBRD has its ongoing Highway Projects (including maintenance) with which AID works very closely, the Belgians are the only donor currently involved in providing tools and cash wage components for labor intensive rural roads outside of area development project road construction schemes. Both AID and certain PVO's (particularly CARE) have considerable expertise in the area of labor intensive rural road construction. The success of agriculture and rural development projects requires access of personnel and agricultural inputs to the project area as well as moving produce out. Therefore AID may, if funds are available, and the route 84 experiment proves successful, decide to implement an additional employment generating rural road program that provides a key link into an area where AID has an agricultural project. In any case, AID would be interested in providing PL 480 Title II foodstuffs for such projects.

As stated in Section I, very little food crop production is marketed and there are regional surpluses and deficiencies. As food production increases, a higher percentage must be stored and marketed. At present, the growing co-operative movement, assisted primarily by Belgians, ILO, religious and voluntary organizations, seems to be moving into this area, along with some area development projects. AID had planned to enter food storage and marketing,

working with the Government marketing organization SOBECOV, but has decided, after a survey of the subsector, not to enter food marketing and storage as planned. There may be a need for additional research and testing of improved on-farm food storage techniques to reduce losses of food crops. AID might consider incorporating some studies into the Small Farming Systems Research Project or perhaps, set up a small project using regional funds, working with other donors.

CRS PL 480 Title II programs improve the nutrition of the recipients and their families. The Food for Work programs usually include a cash wage component and they expand employment among rural men.

2. Reduce Rate of Loss of Arable Land to Soil Erosion and Increase Availability of Alternative Energy Sources to Rural and Urban Poor

Soil conservation, afforestation and energy use are other fields crossing sector lines. Burundi's steep slopes and dense population have exacerbated erosion problems as more marginal land is cultivated. Deforestation to meet fuel needs has accelerated the progress. As described in Section I/D, Burundi will have only 40 percent of her forests within five to seven years at current rates of consumption, and it is becoming difficult to find firewood in many areas. Wood, as described in Section I/C, is no longer regarded as a true "free good" in some parts of the country. The Burundi Government is well aware of the problem and has taken vigorous action on its own, both in forestry and in developing Burundi's one practical alternative energy source, peat.

Several donors, most noticeably the European Development Fund, the French (both forestry and soil mapping), Belgium, Saudi Arabia and IBRD have large afforestation projects, primarily saw timber plantations. The IBRD is helping to establish communal nurseries and the Burundi Government is working on communal afforestation and helping farmers plant their own trees. AID has an advantage in that it can draw upon the U.S.'s considerable forestry and conservation expertise and has also conducted several small scale investigations of rural attitudes in Burundi toward fuel and firewood during project design for the Bururi Forest and Peat II projects.

Therefore, AID plans to start the Bururi Forest project in FY 1981 combining preservation of a small remnant of highland forest with testing and extension of improved, more fuel efficient rural cookstoves. Other donors

have neglected these activities. As the IBRD forestry project matures and more GRB staff become available, future areas of concentration will probably be in extension to help farmers develop their own tree plantings combined with an extension of the stove improvement program.

Over the past two years, AID has taken the lead in helping develop Burundi's peat reserves, since use of peat is the one available fuel that will give time to permit the afforestation projects to get underway. Several other donors have done studies, but the most important efforts have been by the Irish Government (which can finance only relatively small sums), the DANIDA financed bog survey and the European Development Fund's financing of one production bog. (The EEC may provide assistance into future peat development probably in the context of higher level technologies needed to extract peat from the Grand Marais on the Rwanda-Burundi border. The IBRD urban development project will include a component to help finance stoves in urban areas.

The Alternative Energy: Peat II Project, scheduled for completion in 1985, should result in peat replacing wood and charcoal in 60 percent of Bujumbura's households, as well as using it for light industry and institutions. This project will also increase food and cash income of families whose men work as laborers on the bogs. AID has deliberately selected a labor intensive technology because of the lack of wage employment in the interior. Although bogs now being worked are in the southern half of the country, the largest bog is in densely populated Ngozi province, where the fuel situation is the most acute. The Peat II project is also designed to upgrade the national peat office's institutional capability. Towards the end of the planning period, AID will propose assistance to extend the use of peat as fuel in rural areas and communal working of small peat bogs (possibly in the form of a grant to a voluntary agency).

Although AID has received requests regarding assistance for other forms of alternative energy, such assistance can probably be provided within the context of CEPGL and other regional programs or other donor assistance. AID intends to continue financing training in the energy field using both the African Manpower Training and Development Program and other centrally funded training programs.

3. Improving the Delivery of Health and Family Planning Services to the Rural Poor

The U.S. Government objective in the Health/Family Planning sector, considering social attitudes and Government progress as stated in Section I, should be to move towards providing some support for family planning and child

spacing during the medium term. It is clear that the increase in population strains food and land availability. Endemic diseases, particularly parasitological diseases, limit the ability of the body to make efficient use of food, as well as the individual's ability to work productively (see Section I/C and I/D/4 and 5).

The keystone of the U.S. Government approach is to use the Health Sector Assessment as a means of collaborative planning of eventual assistance in the rural health delivery programs involving maternal/child health with a family planning component. Integrated rural health programs would include activities regarding supply and maintenance of safe drinking water as well as basic health education in primary schools and non-formal education centers. It appears that the numerous other donors in public health have not yet gone into integrated rural health programs in a substantial way. A pilot program, which might reach about 50,000 families, would bring together private and public sector activities in rural health. Such a project might start in FY 1982. We think, however, that family planning assistance should be provided through a private voluntary organization, working with private Burundi entities. If the pilot project goes well, we anticipate a major expansion in FY 1985 so that the rural health programs would reach about 200,000 families when in full operation.

We foresee increased involvement of private voluntary organizations in family planning programs. AID/Burundi believes that the U.S. should use its expertise in rural health programs to start pilot programs with maternal child health components and expand the projects as progress warrants.

Other donors in health include the Belgians, French, WHO, UNICEF, Japan and numerous religious organizations. The UNFPA is the major public donor in family planning (using other UN organizations for implementation).

Anticipated progress during FY 1981 includes:

- GRB participation in the health sector assessment (now under way).
- GRB participation in PID preparation for rural health project with MCH/FP component (assumes favorable recommendation in assessment. Also assumes timely AID/W and contract assistance in PID preparation).
- GRB submits formal request for project assistance (assuming timely AID/W approval of PID).
- Send at least four participants in FY 1981 to AID sponsored (or financed) family planning programs. (Four individuals, including the Director General of Public Health, have already been nominated so far this FY).

- Start developing, with AID, private or other donor assistance, material for child spacing and "sensitizing" activities in the Foyers Sociaux as part of general maternal/child health activities.
- Timely implementation of UNFPA projects (the GRB has signed the \$1.3 million pilot family planning project and implementation has begun).

Please see Section I for progress to date, as well as recent cables.

In FY 1981 AID will take advantage of U.S. expertise and provide regional financing during the first two years of a GRB expanded immunization program against childhood diseases. The program also receives substantial UNICEF and WHO support, and missionary medical personnel will be involved in the inoculation program.

C. OTHER STRATEGIES

1. Sector Support Projects

AID/Burundi's phased approach is designed to build up supportive institutional capacity of agriculture related activities to permit eventual implementation of "horizontal" agricultural production programs, perhaps including fertilizer and other input distribution programs. Burundi is not yet ready for the sector support programs because the necessary institutional capacity is not yet available to implement them. Large scale fertilizer distribution programs are out of the question at the moment because of transportation bottlenecks and costs. We believe, however, that by the late 1980's Burundi will have the strong planning unit used to allocating resources and sufficiently large demand for agricultural credit and input requirements to make such a project feasible.

2. Geographic Area Concentration

Burundi is a compact country, with a substantial percentage of its population in Bujumbura, Gitega, Ngozi and Muramvya provinces in the Northern Central Plateau and along the Zaire/Nile crest. Gitega and Ngozi provinces have more cash crop production and receive substantial assistance from other donors. The GRB prefers to spread assistance around the country, and not have several donors all working on various aspects of food production (for example), in the same province. Although the AID projects are scattered, most of them benefit the populations of the Zaire/Nile crest or the central highlands. Geographic dispersion of AID projects does not pose the difficult administrative problems to AID that it might in a larger less densely populated country.

SECTION III: FUNDING LEVELS AND IMPLEMENTATION

A. Proposed Funding Levels in Millions of U.S.\$

<u>Category</u>	<u>FY</u> <u>1981</u>	<u>FY</u> <u>1982</u>	<u>FY</u> <u>1983</u>	<u>FY</u> <u>1984</u>	<u>FY</u> <u>1985</u>	<u>FY</u> <u>1986</u>	<u>FY</u> <u>1987</u>
<u>Food, Rural Development and</u>							
<u>Nutrition</u>	<u>3.1</u>	<u>3.3</u>	<u>4.8</u>	<u>3.8</u>	<u>6.0</u>	<u>11.0</u>	<u>14.0</u>
FY 1980 and 1981 Projects	3.1	3.3	2.8	.8	-	-	-
New Projects	-	-	2.0	3.0	6.0	11.0	14.0
<u>Population (new projects)</u>	-	.34	.56	.67	2.0	1.0	2.0
<u>Health (new projects)</u>	-	.34	.56	.67	2.0	1.0	2.0
<u>Education (new projects)</u>	-	-	-	2.0	-	-	3.0
<u>Special Development Activities</u>	<u>6.9</u>	<u>2.1</u>	<u>2.0</u>	<u>4.0</u>	<u>4.0</u>	<u>6.0</u>	<u>6.0</u>
FY 1980 and 1981 Projects	6.9	2.1	2.0	1.0	-	-	-
New Projects				3.0	4.0	6.0	6.0
<u>Total Bilateral Projects</u>	4.0	6.08	7.92	11.14	14.0	19.0	27.0
<u>Total PL 480 Title II Programs</u>	<u>4.8</u>	<u>6.0</u>	<u>6.7</u>	<u>7.9</u>	<u>8.3</u>	<u>8.8</u>	<u>9.4</u>
CRS Regular Programs	4.5	5.3	6.0	6.6	7.0	7.5	8.0
Additional Food for Work Component	.3	.7	.7	1.3	1.3	1.3	1.4
<u>Grand Total All Assistance</u>	8.8	12.08	14.62	19.04	22.3	27.8	36.4

B. PROGRAM IMPLEMENTATION

1. Project Proliferation, Replication and Funding

AAO believes that the absorptive capacity for projects in the implementation stage in its bilateral and regional programs is about nine or ten mutually reinforcing projects in food production, forestry/conservation/alternative energy, and rural health/family planning. African Manpower and Development Program will address general manpower training as set forth in the country training programs. Two or three additional projects will be designed each year, usually as Phase II or III or existing projects nearing phase out. For example, the 1980 Alternative Energy project is a second peat project following up on the regionally funded Peat I project completed in October 1980. Areas bordering on the High Altitude Food Crop program (the FED financed extension phase of Basic Food Crop's seed multiplication) might be used as pilot zones for Small Farming Systems Research, and eventually for an Agricultural Extension project. The Agricultural Extension project will use the results of SFSR's research. AID's rural health program will start as a small pilot program and will then expand as GRB and AID's own absorptive capacity increases.

The list below indicates the years in which bilateral projects receive funding. Project implementation may continue two to three years after funds are obligated.

FY 1982: Old Projects: Basic Food Crops, Small Farming Systems
Research, Bururi Forest, Peat II.

New Project: Rural Health : Maternity/Child Health

FY 1983: Old Projects: Basic Food Crops, SFSR, Rural Health, Peat II

New Project: Agricultural Extension

FY 1984: Old Projects: SFSR, Agricultural Extension, Rural Health,
Peat II

New Projects: Rural Development Training, Labor-Intensive
Rural Roads

FY 1985: Old Project : Agricultural Extension

New Projects: Food Production, Rural Health Phase II, Rural
Fuel

FY 1986: Old Projects: Agricultural Extension, Food Production, Rural
Health Phase II

New Project : SFSR Phase II, Peat III

FY 1987: Old Projects: Food Production, Rural Health Phase II,
Peat III
New Projects: Agriculture Sector Support, Rural Development Training II.

AID/Burundi believes that project funding should be switched to provide life of funding for projects in the first year of implementation. At present the Burundi program has a substantial "mortgage", particularly in agriculture appropriations category. By FY 1987, all projects should receive life of project funding upon authorization.

It should be noted that funding levels proposed herein allow for a minimum of 15 percent inflation.

2. AID Staffing

If in fact AID is serious about meeting the needs and enhancing the quality of life of Burundi's poor, then these funds must be made available. If the same documentation, reporting and audit criteria are imposed then as exist at present, about a dozen direct hire Americans are needed to identify, program and administer this level of assistance when the programs are in full operation (in 1987). AAO is again looking for precise guidance from AID/W on how to proceed.

Planning and implementing development projects which meet the basic needs of the poor majority in one of the least developed countries such as Burundi requires a relatively high level of direct hire and contract personnel if the projects are to be successful. It is counter-productive to do "more with less" AID staff to meet our Congressional Mandate in a country where trained manpower is so scarce and the literacy rate is so low. In an India or even a Cameroon, one can find sufficient numbers of trained people to lessen the requirements for AID direct hire personnel. Although we intend to use Burundian local hire staff as much as possible, it is difficult to find people with sufficient high level technical expertise and experience required to manage complex projects.

We intend to rely upon REDSO as much as possible. The REDSO, however, is finding it difficult to service the implementation requirements of the Burundi program along with an increase in workload from other missions. The need is particularly acute in the case of engineers, which are needed to review bid documents, construction plans and contracts as well as conduct periodic checks on progress and quality of work. Rwanda and Burundi, plus

Kivu province and maybe Uganda could probably keep one engineer fully occupied over the next two years. There is a substantial requirement for Regional Legal Personnel to review documentation in the last stages of project design and early stages of project implementation, since AAO does not have the necessary delegations of authority to approve many implementation documents without recourse to REDSO. Although AAO/Burundi is making the best use it can of locally available talent, it is clear that we need about ten days work done every two months and it is not available to us.

In addition, supply logistics in Burundi are extremely difficult. It usually takes more than a year to get U.S. commodities in country unless they are airshipped. Any imported goods, from Europe or the U.S. more than double in cost due to shipping fees. The Embassy does not have the logistic capacity to provide support to AID projects. Consequently AID must develop its own system. Any project with more than two long term project technicians must contain its own built in support system (which may entail additional contract personnel).

Implementation of regionally funded projects (including training) and PL 480 Title II will require in FY 1981 about 0.6 work year of American Direct Hire Staff time and 1.2 work years of professional and secretarial services of local personnel.

At present, AID's six U.S. staff and six full time and two part time nationals/local hire can barely keep up with the current design and implementation of the three new starts in both FY 1980 and FY 1981 of bilateral and regional projects. In the future, new projects should be limited to two or three a year (including regional programs). AID will need a minimum of two new positions to provide logistic and design support in FY 1981/1982. These are a health/population officer and a projects officer. If the health sector program begins, a public health officer should be added for project design and implementation (in late FY 1981 or early FY 1982) since no resident staff member has the requisite technical skills. Since it has become clear that REDSO cannot provide its own project officers and legal advisors to us often enough to meet a substantial project design workload as well as a geometrically accelerating project implementation documents requirement, AAO is asking for an experienced project officer. It is our hope that if AAO/Burundi has a projects officer on its staff, delegations of authority regarding many types of project implementation activities will be transferred to us from REDSO.

In addition to the logistic and design support mentioned above, a second agricultural officer will be needed in late FY 1982 to help with implementation of ongoing projects and act as project officer for agricultural extension.

3. Use of Local Expertise

AID intends to use local expertise in project design and implementation whenever it can be found. There is one local consultant firm, 51 percent Burundi owned. Construction supervision can be done locally. Public Works personnel (IBRD-UNDP financed) did the engineering and much of the project planning in the Rural Road project. Where possible, we intend to use agricultural research institute personnel to help plan several projects. It should be noted that many of the staff of these firms and institutions are expatriates and not Burundi nationals.

4. Use of Intermediaries

When and where possible, AID projects will work with voluntary organizations. CRS and a cooperative will help implement the Food for Work component of the Rural Road (route 84 project). AID/Burundi believes that the family planning activities in Burundi should be implemented by PVO's. However, AID should examine each project very carefully before deciding to proceed with a voluntary agency as an intermediary.

The Peace Corps has no program in Burundi and it is unlikely that a program would begin in the near term. As AID expands into extension and production programs, AAO foresees that projects will need some individuals willing to live in rural areas, speaking local languages, to work with extension assistance and moniteurs who do not possess fluent French. AID should therefore seriously consider hiring former volunteers who have already had community development experience as contract team members of extension programs.

ANNEXES

Annex A	:	Macroeconomics
Annex B	:	Agriculture
Annex C	:	Other Donor Assistance
Annex D	:	RDSS Terms of Reference

BURUNDI GROSS DOMESTIC PRODUCT BY INDUSTRIAL ORIGIN IN CURRENT PRICES

(in millions of Burundi Francs)

	<u>1970</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u> ¹⁾
<u>Primary Sector</u>	<u>13,568.0</u>	<u>16,178.9</u>	<u>19,764.1</u>	<u>22,443.0</u>	<u>26,348.9</u>	<u>27,932.1</u>	<u>35,232.3</u>
Agriculture - foodcrops	11,130.5	12,717.4	16,170.2	17,781.3	20,362.1	21,109.8	26,885.4
Agriculture - export crops	1,083.3	1,435.5	1,057.5	1,547.2	2,264.3	2,953.6	3,366.1
Livestock	771.3	1,172.8	1,337.7	1,753.3	1,550.9	2,234.0	2,908.1
Fishing	79.7	115.0	112.2	278.4	201.6	262.4	271.4
Forestry	503.2	738.2	1,076.5	1,082.8	1,970.0	1,369.1	1,801.3
<u>Secondary Sector</u>	<u>1,858.9</u>	<u>2,860.6</u>	<u>3,341.8</u>	<u>4,590.3</u>	<u>4,870.6</u>	<u>7,717.7</u>	<u>10,433.5</u>
Agroindustry	61.1	91.7	65.8	112.5	102.5	175.6	222.7
Food Processing	947.3	1,628.8	1,418.2	2,612.3	1,876.4	5,457.8	4,795.2
Handicrafts and Leather	78.0	111.2	107.5	166.8	178.6	253.4	346.0
Mining and Energy 2)	63.9	99.8	126.6	135.0	119.6	199.6	301.2
Other Industries	259.2	400.4	636.6	557.7	865.8	772.4	1,287.7
Construction	449.5	528.7	987.4	1,006.0	1,727.7	2,858.9	3,480.7
<u>Tertiary Sector</u>	<u>4,455.0</u>	<u>6,242.3</u>	<u>7,371.2</u>	<u>9,238.9</u>	<u>11,293.7</u>	<u>13,416.5</u>	<u>17,801.7</u>
Transport and Communications	238.4	393.8	439.3	679.4	1,028.8	1,113.5	1,770.3
Commerce	1,581.8	2,328.1	2,946.1	2,932.1	3,885.4	4,040.7	5,551.3
Other Private Services	736.0	831.9	1,053.7	1,127.3	1,590.1	1,644.0	2,324.3
Public Services	802.9	1,190.5	1,238.8	1,614.5	1,995.9	2,651.4	3,397.0
Private Non-Profit Institutions	453.2	526.2	628.3	1,058.9	1,071.6	1,846.6	2,579.9
Foreign Aid	642.7	971.8	1,065.0	1,824.7	1,721.9	2,120.3	2,238.8
<u>GDP at Factor Cost</u>	<u>19,881.9</u>	<u>25,281.8</u>	<u>30,467.1</u>	<u>36,272.2</u>	<u>42,513.2</u>	<u>49,119.5</u>	<u>63,467.4</u>
Indirect Taxes Less Subsidies	1,583.8	1,995.3	2,204.6	3,172.8	6,378.5	6,109.6	7,887.7
<u>GDP at Market Prices</u>	<u>21,475.7</u>	<u>27,277.1</u>	<u>32,671.7</u>	<u>39,445.0</u>	<u>48,891.7</u>	<u>55,225.7</u>	<u>71,355.1</u>

1) Provisional

2) Includes Mineral Processing

BURUNDI GROSS DOMESTIC PRODUCT BY INDUSTRIAL ORIGIN IN 1970 PRICES

(in millions of Burundi Francs)

	<u>1970</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979¹⁾</u>
<u>Primary Sector</u>	<u>13,568.0</u>	<u>13,563.9</u>	<u>12,224.5</u>	<u>14,770.3</u>	<u>14,921.8</u>	<u>15,336.6</u>	<u>15,717.9</u>
Agriculture - foodcrops	11,130.5	10,686.9	11,798.3	12,022.5	12,238.9	12,410.3	12,646.0
Agriculture - export crops	1,083.3	1,374.1	843.0	1,091.7	995.3	1,243.1	1,383.5
Livestock	771.3	870.0	906.3	932.6	956.8	971.2	985.8
Fishing	79.2	85.3	114.2	148.1	142.7	115.2	92.0
Forestry	503.2	547.6	563.0	575.4	568.1	596.9	610.6
<u>Secondary Sector</u>	<u>1,868.9</u>	<u>2,122.0</u>	<u>2,136.7</u>	<u>2,447.4</u>	<u>3,012.5</u>	<u>3,411.3</u>	<u>3,536.8</u>
Agroindustry	61.1	68.0	55.8	59.3	64.7	77.1	75.5
Food processing	947.3	1,208.3	1,218.0	1,389.0	1,406.3	1,541.7	1,625.5
Handicrafts and Leather	78.0	82.5	73.1	88.2	99.6	111.3	117.3
Mining and Energy 2)	63.9	74.0	69.4	71.3	77.5	87.6	102.1
Other Industries	259.2	297.0	310.2	296.1	318.2	339.1	436.5
Construction	449.5	392.2	410.2	534.6	1,046.2	1,255.0	1,179.9
<u>Tertiary Sector</u>	<u>4,455.0</u>	<u>4,633.5</u>	<u>4,388.6</u>	<u>4,943.8</u>	<u>5,285.5</u>	<u>5,666.4</u>	<u>5,944.3</u>
Transport and Communications	238.4	292.1	381.0	361.4	427.1	488.8	600.1
Commerce	1,581.8	1,727.8	1,560.1	1,559.5	1,630.9	1,723.8	1,881.8
Other private services	736.0	617.9	606.0	599.1	663.2	721.7	787.9
Public services	802.9	883.9	723.5	873.2	1,014.7	1,086.6	1,097.2
Private Non-Profit Institutions	453.2	391.1	468.9	562.7	675.2	776.5	854.2
Foreign Aid	642.7	721.0	648.1	987.9	874.9	869.0	723.1
<u>GDP at Factor Cost</u>	<u>19,881.9</u>	<u>20,319.7</u>	<u>20,749.8</u>	<u>22,161.5</u>	<u>23,219.8</u>	<u>24,414.3</u>	<u>25,199.0</u>
Indirect Taxes Less Subsidies	1,583.8	1,598.8	1,436.9	1,905.0	3,453.3	3,198.6	3,150.3
<u>GDP at Market Prices</u>	<u>21,475.7</u>	<u>21,918.5</u>	<u>22,186.7</u>	<u>24,066.5</u>	<u>26,673.1</u>	<u>27,612.9</u>	<u>28,349.3</u>

1) Provisional

2) Includes Mineral Processing

ORDINARY BUDGET EXPENDITURES

Functional Classification

(in millions of Burundi Francs)

	<u>1970</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980²⁾</u>
<u>General Services</u> ¹⁾	<u>776.1</u>	<u>1,389.3</u>	<u>1,586.3</u>	<u>2,219.4</u>	<u>2,386.5</u>	<u>2,996.7</u>	<u>3,601.6</u>	<u>4,575.0</u>
<u>Social Services</u>	<u>669.1</u>	<u>797.8</u>	<u>914.8</u>	<u>1,107.2</u>	<u>1,476.6</u>	<u>1,891.3</u>	<u>2,217.0</u>	<u>2,688.0</u>
Education	522.0	603.2	710.2	863.2	1,173.9	1,454.2	1,680.8	3,021.7
Public Health	122.6	169.2	178.3	211.2	242.4	355.5	442.6	556.8
Social Affairs and Labor	24.5	25.3	26.3	32.8	43.7	60.5	68.2	78.3
Youth, Sports and Culture	-	-	-	-	16.6	21.1	25.4	31.2
<u>Economic Services</u>	<u>342.1</u>	<u>374.1</u>	<u>401.9</u>	<u>500.7</u>	<u>680.9</u>	<u>836.0</u>	<u>1,193.6</u>	<u>1,387.3</u>
Agriculture and Livestock	97.9	115.8	111.0	133.8	184.2	230.9	345.6	422.0
Public Works, Capital Develop- ment and Housing	200.1	203.2	228.8	298.0	299.4	315.6	517.7	570.5
Transport and Communications	44.1	55.1	62.1	68.9	170.0	240.7	290.6	297.0
Mining and Energy	-	-	-	-	27.2	48.7	38.7	51.7
<u>Public Debt Service</u>	<u>68.0</u>	<u>66.1</u>	<u>61.6</u>	<u>195.9</u>	<u>303.6</u>	<u>329.0</u>	<u>1,853.4</u>	<u>1,000.0</u>
Amortization	16.5	32.9	20.4	117.4	172.6	217.8	1,684.6	853.5
Interest Payments	51.5	33.2	41.2	78.5	131.0	111.2	168.8	146.5
<u>Suspense Accounts</u>	<u>304.5</u>	<u>306.7</u>	<u>260.6</u>	<u>274.7</u>	<u>246.6</u>	<u>541.5</u>	<u>945.5</u>	<u>400.0</u>
<u>TOTAL</u>	<u>2,159.8</u>	<u>2,936.2</u>	<u>3,227.7</u>	<u>4,297.7</u>	<u>5,094.2</u>	<u>6,394.6</u>	<u>9,810.6</u>	<u>10,050.3</u>

(in percentage of GDP)

General Services	3.6	5.1	4.9	5.6	4.9	5.3	5.0
Social Services	3.1	2.9	2.8	2.8	3.0	3.4	3.1
Economic Services	1.6	1.4	1.2	1.3	1.4	1.5	1.7

1) Includes the Presidency, Ministries of Planning, Foreign Affairs, Defense, Interior, Finance, Commerce and Industry, Justics, Information and Civil Service.

Budget.

BURUNDI: ORDINARY BUDGET REVENUES (1970, 1974-1979)

(in millions of Burundi Francs)

	<u>1970</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>
<u>Direct Taxes</u>	<u>641.0</u>	<u>903.0</u>	<u>997.6</u>	<u>1,230.4</u>	<u>1,251.1</u>	<u>1,710.9</u>	<u>2,068.9</u>
Income Taxes	333.5	607.8	706.7	910.2	1,154.9	1,619.7	1,965.4
Poll Taxes	248.2	235.4	230.1	237.7	-	-	-
Property Tax	53.4	46.7	45.6	56.6	48.7	45.6	49.2
Other Direct Taxes	5.9	13.1	15.2	25.9	47.5	45.6	54.4
<u>Indirect Taxes</u>	<u>1,313.1</u>	<u>1,914.5</u>	<u>1,833.2</u>	<u>3,096.3</u>	<u>4,039.4</u>	<u>5,559.8</u>	<u>7,044.9</u>
Taxes on Foreign Trade	891.9	1,169.8	1,105.4	2,146.8	2,712.6	3,555.1	4,879.3
Import Duties	(533.5)	(829.2)	(913.9)	(834.8)	(1,476.9)	(1,901.3)	(2,912.0)
Export Duties ¹⁾	(351.9)	(330.2)	(177.4)	(1,293.8)	(1,235.7)	(1,623.8)	(1,849.4)
Miscellaneous	(6.5)	(10.4)	(14.1)	(18.2)	(-)	(-)	(117.9)
Excise Tax	320.9	595.7	626.3	765.7	1,064.1	1,340.8	1,604.6
Transaction Tax	100.3	149.0	151.5	183.8	282.7	393.9	561.0
<u>Other Revenues</u>	<u>138.8</u>	<u>171.5</u>	<u>173.2</u>	<u>297.8</u>	<u>337.5</u>	<u>390.2</u>	<u>423.7</u>
<u>Total Ordinary Budget Revenues</u>	<u>2,092.9</u>	<u>2,989.0</u>	<u>3,054.0</u>	<u>4,624.4</u>	<u>5,648.0</u>	<u>7,360.9</u>	<u>9,537.5</u>

(in percentage of GDP)

Direct Taxes	3.0	3.3	3.1	3.1	2.6	3.1	2.9
Indirect Taxes	6.1	7.0	5.8	7.8	8.3	9.4	9.9
GDP at Market Prices		27,277.1	32,671.6	39,445.0	48,891.7	55,225.7	71,355.1
Annual growth		11.6%	19.8%	20.7%	23.9%	13.0%	29.2%
1) Coffee Export Duties	319.9	299.4	154.1	1,248.0	1,169.0	1,542.2	1,849.0

Excludes amounts allocated to the Extraordinary Budget (BuF 2,241 million in 1977, FBu 820 million in 1978 and FBu 162 million in 1979).

EXTRAORDINARY BUDGET EXPENDITURES 1970, 1974 - 1979

(in millions of Burundi Francs)

	<u>1970</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>
<u>Current Expenditures</u>	17.6	101.2	150.9	118.3	110.6	309.8	420.4
Road Fund	15.6	51.2	70.8	41.2	46.7	63.9	-
Military Expenditures	2.0	50.0	80.1	77.1	63.9	245.9	420.4
<u>Shareholdings and Investment in Public Enterprises</u>	<u>19.7</u>	<u>0.7</u>	<u>96.4</u>	<u>197.2</u>	<u>919.8</u>	<u>1,364.8</u>	<u>1,230.3</u>
Mining and Energy Industry	17.4	0.1	23.0	46.3	157.0	355.3	370.8
Transportation	-	-	-	19.1	309.9	134.1	117.3
Posts and Telecommunications	2.3	0.6	-	51.5	14.1	92.6	68.8
Commerce, Banking and Insurance	-	-	-	-	137.6	183.3	-0-
Tourism	-	-	18.0	30.0	80.8	52.7	49.2
Housing	-	-	21.7	18.1	117.9	400.7	397.7
<u>Fixed Investment by Central Government</u>	<u>60.3</u>	<u>150.2</u>	<u>83.8</u>	<u>627.5</u>	<u>1,005.1</u>	<u>1,583.4</u>	<u>2,005.4</u>
Agriculture	33.2	43.7	33.5	246.0	331.9	556.9	547.8
Roads and Airports	6.4	86.2	2.9	105.8	75.1	312.0	509.6
Administrative and Social Structure	13.1	18.9	47.4	275.7	598.1	714.5	946.0
Other	7.5	1.4	-	-	-	-	-
<u>Debt Amortization</u>	<u>10.8</u>	-	-	<u>72.1</u>	<u>5.0</u>	-	-
TOTAL	<u>108.3</u>	<u>252.1</u>	<u>331.1</u>	<u>1,015.1</u>	<u>2,040.5</u>	<u>3,258.0</u>	<u>3,656.4</u>
<u>For Reference:</u>							
Investment in public enterprises	19.7	0.7	29.7	120.1	584.7	982.7	n.a.
Shareholding in public enterprises	-	-	66.7	77.1	335.1	382.1	n.a.
<u>Total Capital Expenditures</u>	<u>77.7</u>	<u>150.9</u>	<u>180.2</u>	<u>824.7</u>	<u>1,924.9</u>	<u>2,948.2</u>	<u>3,194.5</u>

Food Crop Production
(000 metric tons)

	1970	1971	1972	1973	1974	1975	1976	1977
Beans	278.7	284.8	256.3	291.1	232.1	294.0	300.5	307.0
Peas	30.1	30.7	27.7	31.4	25.2	31.8	32.5	33.0
Bananas (eating)	440.5	450.2	405.2	460.1	462.0	464.7	474.9)	1,320.0
Bananas (brewing)	756.5	773.3	695.9	790.2	780.0	798.1	815.7)	
Cassava	370.3	378.4	340.6	386.8	389.4	390.6	393.8	396.0
Potatoes (white)	34.0	34.7	31.3	35.5	28.4	35.9	36.6	37.0
Sorghum	20.4	20.5	18.4	20.9	16.7	21.4	21.5)	32.0
Finger Millet	8.8	9.0	8.1	9.2	7.3	9.3	9.4)	
Cocoyams	96.2	98.3	88.5	100.5	80.4	101.5	103.4)	111.5
Yams	5.8	5.9	5.3	6.0	4.8	6.1	6.2)	
Sweet Potatoe	381.6	390.0	351.0	398.6	318.6	402.6	411.4	420.5
Maize	130.0	132.9	119.6	135.8	108.9	137.1	138.5	140.0
Wheat	5	5.1	4.6	5.1	4.1	5.2	5.5	6.0
Rice	5	4.3	4.8	4.8	6.2	6.7	6.7	7.0
Oil Palm Nuts	11.6	11.6	8.9	9.4	10.5	11.6	11.6	11.5
Peanuts	6.2	7.0	7.2	7.8	8.4	9.0	9.2	9.5
Others (particularly fruits and vegetables)	97.7	99.9	89.9	103.2	82.4	105.8	108.1	105.0

Based on Ministry of Plan and Ministry of Agriculture Data.

It should be noted that unadjusted Department of Agronomy figures may run 50 percent higher.

PRODUCER PRICES FOR FOOD CROPS

FBu/Kg

	<u>74/75</u>	<u>75/76</u>	<u>76/77</u>	<u>77/78</u>	<u>78/79</u>
Manioc	3.5	4.0	4.0	4.0	15.0
Sweet Potatoes	3.0	3.5	4.0	4.5	13.0
Yam and Cocoyam	4.0	4.0	4.5	4.5	-
Potatoes	9.0	10.0	12.0	15.0	-
Maize	9.8	10.0	11.0	11.0	20.0
Sorghum/Millet	9.3	10.0	11.0	11.0	20.0
Wheat	10.5	11.0	12.0	21.0	15.0
Beans	13.0	15.0	16.0	17.0	30.0
Peas	23.0	27.0	29.0	30.0	25.0
Bananas (eating & brewing)	3.0	3.5	4.0	4.0	-
Peanuts	28.0	30.0	32.0	30.0	-
Palm nuts	7.0	8.0	8.0	8.0	-
Arabica Coffee (parchment)	45.0	39.0	65.0	112.0	112.0
Tea	5.0	5.0	7.0	10.0	10.0
Cotton (best quality unginned)	13.0	14.0	20.0	30.0	30.0

PARCHMENT COFFEE BY PROVINCE - PERCENTAGE

	<u>1970</u>	<u>1974</u>	<u>1975</u>	(E) <u>1976</u>	<u>1977</u>	<u>1978</u>
Bubanza	10.2	5.5	7.3	8.2	6.2	6.8
Bujumbura	4.8	2.1	6.8	6.2	8.1	5.9
Bururi	10.8	6.5	10.6	6.8	9.3	8.9
Gitega	13.2	14.8	14.9	18.5	14.6	17.1
Muramvya	5.2	7.0	7.6	5.9	4.0	7.5
Muyinga	17.5	18.6	8.9	14.7	12.0	14.1
Ngozi	34.7	41.0	46.5	34.7	42.5	35.5
Ruyigi	3.6	4.5	3.4	5.0	3.4	4.2

FERTILIZER IMPORTS 1980-1979

	<u>1970</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1)</u> <u>1979</u>
Total net quantities in tons	1,363.9	2,360.7	1,319.6	1,672.5	1,842.7	2,140.7	1,022.2
Quantum index 1970 = 100	100	173.1	96.8	122.6	135.1	157.1	-
CIF unit value FB u/Kg	9	18.8	24.0	24.2	24.1	27.7	31.2
Price index 1970 = 100	100	208.9	266.7	268.9	267.8	307.8	346.7

1) nine months only.

Major Ecological Zones, Locations, and Crops

Ecological Zone	Provinces Physical Territory	Physical Characteristics	Food Crops	Cash Crops
Imbo	Lake Tanganyika Shore and Ruzizi River Plains	800-1,000 m altitude, 22.5-25°C (Average daytime temperature) 800-1,000 mm rainfall	Beans - 800 kg/ha Maize - 800 kg/ha Sorghum - 700 kg/ha Cassava - 6,000 - 8,000 kg/ha Bananas - 7,000 kg/ha	Robusta Coffee - 1,200 kg/ha (parchment) Cotton - 550 kg/ha (seed cotton) Oil palm Rice - 2,500 kg/ha (irigated)
Medium Altitude Western and Eastern Zones	Lower edges of rift escarpment Muhinga, Mosso	1,000-1,500 m altitude 20-23°C (average day- time temperature) 900-1,200 mm rainfall	Beans - 800 kg/ha Peanuts - 500 kg/ha (unshelled) Maize - 450 kg/ha Cassava - 5,000 kg/ha Bananas - 7,000 kg/ha	Robusta coffee - 1,200 kg/ha (parchment) Sugar cane (Mosso area)
Zaire/Nile Crest	Rwanda border through Muramvya Ijenda, Tora	1,900 - 2,500 m altitude 17-19°C (average day- time temperature) 1,300-1,600 mm rainfall	Maize - 450 kg/ha Wheat - 410 kg/ha Peas - 420 kg/ha Sorghum/Millet - 550 kg/ha Sweet Potatoes - 4,580 kg/ha	Tea - 900-1,500 kg/ha (made tea) White potato - 4,790 kg/ha Truck gardening
Central Plateau	Ngozi, Gitega south almost to Bururi	1,500-1,900 m altitude 19-20°C (average day- time temperature) 1,000-1,200 mm rain- fall	Beans - 450 kg/ha Bananas - 6,500 kg/ha Maize - 400 kg/ha Sweet Potatoes - 4,000 kg/ha Cassava - (limited at higher altitudes) 4,500 kg/ha	Arabica coffee - 900-1,200 kg/ha (parchment)

Note: Depending on definition of ecological zone, some experts state Burundi may have up to eleven regions. The table above is somewhat arbitrary, but it does describe the broad basic types of climate and agricultural production.

OTHER DONOR ASSISTANCE IN BURUNDI 1980

I. SUMMARY:

Burundi received a substantial amount of development assistance from other donors in 1980. Belgium, the largest donor with \$28 million programmed for 1980 (\$5.4 million more than in 1979), provided assistance including 166 advisors in education, agriculture and health. An additional 34 advisors work in various GRB ministries. West Germany, the second largest donor with roughly \$25 million in 1980, concentrated its assistance efforts in providing electricity and potable water supplies to Burundi. France (FAC), the third largest donor in Burundi, gave technical assistance and capital grants worth \$10.8 million, about the same as in 1979, with major programs in the transportation and agricultural (forestry and livestock) sectors. France also provided 157 advisors in all aspects of education and in various GRB ministries, teaching institutions, military and para-public organizations.

International organizations also provide substantial assistance. The United Nations Agencies collectively provided roughly \$8 million for personnel and advisors, often accompanied with small grants for supplies and equipment. Assistance concentrated in the health, education and agriculture sectors. Several UNICEF projects are directed toward women in development. An agreement for a Maternal and Child Health project with a substantial family planning component -- the first of its kind in Burundi -- was signed on December 1980. The European Development Fund (FED) provided approximately \$10 million in advisors and grants in 1980, about the same as in 1979. FED provided assistance to various agricultural activities, the main one being in tea cultivation. The FED has been historically a major donor in the transportation sector. The World Bank gave IDA credits totalling \$37.7 million in 1980, including an urban development project, phase II of an education project and a telecommunications project. Ongoing World Bank projects include road maintenance, fisheries and coffee production.

II. Grants and Technical Assistance:

A. Major Donors:

1. BELGIUM:

a. Education: A total of 108 teachers and advisors are working in this sector of which 15 are at the University level, 21 at the secondary level and the balance are in technical and vocational training. Grants have been approved for construction, equipment and books for the University, technical and teacher training institutions.

b. Agriculture: 40 advisors, usually accompanied by small grants for supplies and equipment, are doing agricultural research and training extension workers, and are carrying out projects in integrated rural development, livestock, tea cultivation, seed multiplication, reforestation and vegetables.

c. Health: 18 advisors (including doctors) are working for the Ministry of Health and are conducting training in tropical medicine and sanitation and are giving leprosy treatment. Grants include funds for the development of potable water sources, manufacturing pharmaceuticals, care of handicapped and treatment of tuberculosis patients.

d. Other: A total of 34 advisors work in a wide range of GRB ministries. Grants have been approved in road construction, self-help housing, telecommunications and power.

2. WEST GERMANY:

a. Natural Resources: West Germany provides capital and technical advisors to Burundi's water and electricity board (REGIDESO) which supplies electricity to Bujumbura and other areas.

b. Health: Major grants in this sector are for potable water projects.

c. Transportation: Assistance includes support of maintenance and improvement of bridges throughout Burundi, as well as technical assistance to the bureau of transportation and a workshop for repairing road building equipment.

d. Other assistance: The Ministries of Plan, Agriculture and Livestock, the Office of Tourism and a veterinary-medical laboratory all receive technical assistance.

3. FRANCE (FAC):

a. Agriculture/Forestry/Fisheries: Grants in this sector financed two reforestation projects and one new forestry research project as well as an animal husbandry protection project.

b. Transportation: A ship with a bulk capacity of 350 tons is being built to provide additional lake transportation capacity, and a testing laboratory is being constructed and equipped for the Ministry of Public Works.

c. Natural Resources: A mineral prospecting project in the North-East of Burundi was completed. The experts will spend eight months in Burundi and then four months in France to analyze further their findings.

d. Health: A grant provides medical supplies and equipment for a hospital in Bujumbura.

e. Other Assistance: FAC built a five circuit satellite station in 1980 as well as constructed several transmitters and equipped the Burundi radio station. FAC also constructed and equipped a laboratory and financed experts to a city planning urbanization project and funded an aerial photography mapping project. A total of 157 advisors work in a wide range of GRB ministries, teaching institutions, military and para-public organizations.

4. UNITED NATIONS:

a. Agriculture: UNDP funds technical expertise to establish cooperatives, forestry and rural development training, to increase milk production (executed by FAO) and to teach at the post secondary level of an agricultural technical school. UNICEF's appropriate technology project is set up to provide farmers and particular women with locally made materials such as jars, dryers and improved storage units to help with the conservation of food and facilitate women's tasks. FAO funds provided biology and forestry training, a soil conservation program and an anti-tick program for calves.

b. Health: In 1980 UNDP provided medical supplies and equipment to a Bujumbura hospital. UNICEF's major projects included a child nutrition program which provides selected seeds, fertilizers, insecticides and agricultural tools to farmers and women in particular, and a child health program which retrains nurses and auxilliary personnel as well as finances vaccines, equipment and commodities to Burundi's national immunization project. A potable water project will cap some 4,000 springs. UNFPA's new 1980 projects include demographic data collection, establishment of a Center for Demographic Research and Population Programs and improvement of the civil registration system. The UNFPA and GRB signed an agreement for a Maternal and Child Health project with a substantial family planning component (the first project of this kind in Burundi) on December 1980. WHO provides primarily training for medical and paramedical personnel as well as sanitary inspectors.

c. Education: In this sector UNDP provides eight advisors and teachers to the University, the Bureau of Rural Education and for in-service training in public administration to government and para-institutional personnel. UNICEF gives technical assistance to the Ministry of Social Affairs by providing training of teaching assistants in the foyers sociaux in nutrition, sanitation, food production, animal husbandry and home economics, and supports training and retraining of teachers and directors to the Bureau of Rural Education.

d. Other: UNDP funds a mineral exploration project, an industrial development project to promote small and medium sized enterprises and planning of low cost housing.

5. EUROPEAN DEVELOPMENT FUND (FED):

a. Agriculture: FED terminated five major projects by the end of 1980 which included three tea cultivation projects, a peat extraction project and a rice and coffee growing project. However, in the beginning of 1981, FED will start a consolidation program for all of its tea projects which will include a continuance of technical assistance and commodities. Other projects in this sector include wood production, social infrastructure and provision of potable water supplies and a livestock project.

b. Transportation: Feasibility studies include several road construction projects and the improvement of Kigoma's harbour and Bujumbura's shipyard.

c. Other: Assistance includes construction and equipment for the Faculty of Science, construction of dormitories for university students and a rural hospital. Grants were also given for airlifts of food and commodities (during the Uganda/Tanzania crisis) and for a stabilization fund for Burundi exports. New 1980 grants include research on primitive liver cancer and a feasibility study of bio-gas for Burundi.

B. Minor Donors:

1. JAPAN: provided two grants in 1980 for medicines and medical supplies, vehicles (ambulances) as well as road construction equipment (\$4.4 million).

2. USSR: funded 14 professors at the University, 11 medical doctors, and provided 68 long-term scholarships for universities and technical secondary schools in Russia and 12 short term scholarships to Russia for re-orientation. It also funds two short-term training programs for journalists or radio announcers.

3. CUBA: funded 13 technical experts of which 5 are agricultural technicians, five are doctors, two are nurses and one is a laboratory technician.

4. ROMANIA: provided 30 scholarships in 1980 for technical and university education.

5. EGYPT: provides scholarships to the International Center for Agriculture in Egypt and to the University of Cairo.

6. SWEDEN: provided funds for eight airlifts during the Tanzania/Uganda conflict for one million kroner (approximately \$230,000).

7. ITALY: continues to support the only secondary art school in Gitega (which they constructed) and provides some grants to support agriculture, health and road construction activities.

8. SWITZERLAND: funded eight advisors to the Ministry of Public Works and provided several professors and equipment to the Faculty of Economics. The Swiss also provides scholarships for university level studies and funds for research and a library.

9. DENMARK: financed a peat technician and some logistic supplies (two vehicles) for surveying of peat in Burundi; one doctor and one nurse to a hospital in Ngozi and gave technical assistance to the department of Public Works.

10. UNITED KINGDOM: provided some scholarships for training of English teachers and financed some engines for fishing boats.

11. LIBYA: A university library (\$2 million), an Islamic Center in Bujumbura (\$7 million), a radio station (\$2 million) and an Islamic school in Bujumbura are currently under construction.

III. Loans:

1. WORLD BANK: In 1980 the World Bank gave \$37.7 million in credits to support three new development projects; an urban development project, the second phase of an education project to assist the GRB in the reform and reorganization of its secondary education, and a telecommunication project to strengthen internal telecommunication facilities within Burundi. On-going projects include road and bridge construction and highway maintenance projects, an education project (Phase I), fishery development and coffee improvement.

2. CHINA: A \$20 million loan in 1972 financed six military camps, a hydro-power station to be completed in 1981 and 115 km. of road construction (still on-going). Early in 1979 a second loan for \$33.5 million was signed to complete previous projects and to finance a textile mill (now completed).

3. NORTH KOREA: Four loan agreements have been signed with North Korea for construction of an agricultural tool factory, a 200 hectare rice production project, construction of a congressional hall with a capacity of 12,000 people and construction of the presidential residence (the last two projects have not yet started). All projects are loans, except for construction of the congressional hall which is a grant for \$1.7 million. The loan for the presidential residence is for \$4.5 million.

4. ABU DHABI: (\$1 million): fishery project, co-financed with the World Bank.

5. KUWAIT: cofinanced road construction (\$7.1 million) and the second IDA coffee project (\$1.15 million).

6. SAUDI ARABIA: A loan for \$2.5 million was signed in 1980 for the continuation of a forestry project. Three additional loans for \$21 million supports construction of a road and a hospital and an integrated rural development project.

7. OPEC: OPEC has given two loans to Burundi for a total of \$6.5 million to support Burundi's balance of payment.

8. ARAB DEVELOPMENT BANK FOR AFRICA (ADEBA): cofinanced the improvement of sewerage and drainage system in Bujumbura (\$4 million) and road construction (\$7.1 million) with the World Bank.

TERMS OF REFERENCE
For
Great Lakes Region Mini-Regional Development Strategy Statement

Introduction

A review of the country development strategy statements prepared for both Rwanda and Burundi indicates that demographic and economic situations are sufficiently similar in the two countries and that constraints attributable to one country can be attributed to the other. This situation indicates that an AID regional response may be appropriate in some instances. Where political differences may exist throughout the region, bilateral programs closely coordinated and AID-internally integrated, may offer opportunities to share experiences and reduce costs. There are the obvious possibilities of regional programs and/or coordination in the areas of agricultural research, energy development, higher education, technical training, agro-industrial development and food crop marketing.

The area to be encompassed by the RDSS includes Rwanda, Burundi, Northern Zaire (Kivu province) and to a more limited extent, Tanzania and Uganda insofar as the economic and political situations in these two latter countries have potential to affect the economics and the development progress of both Rwanda and Burundi.

There are two regional organizations which have the potential for regional planning and specific project implementation. These are the Economic Community of the Great Lakes Countries (CEPGL - Burundi, Rwanda and Zaire (for Kivu Province)), and the Kagera River Basin organization (ORBAKA - Tanzania, Rwanda, Burundi and Uganda), both have established and staffed offices in Rwanda and both are engaged in regional planning efforts. AID has provided technical assistance to both organizations and they are expected to be major resources for the RDSS.

The regional development strategy statement will be a document largely based on available studies in each country, rather than original field work. There will be opportunity to meet with officials in both Rwanda and Burundi and with officials of both the CEPGL and ORBAKA.

The focus of the RDSS will be the definition of the food/population issue and a proposed AID response in a regional context. The broad areas to be covered by the RDSS will include:

A. Analysis of Development in the Region

This section will discuss the rural poor, the constraints to improving rural welfare and progress and commitment to rural development.

1. Agriculture:

Subsistence agriculture dominates throughout the region. Both the Burundi and Rwanda CDSS's have identified the principal constraints in this sector. What is needed now is to look at the sector from a regional point of view to identify national policies that coincide or conflict and which encourage or impede regional cooperation, and to recommend areas where regional cooperation can lead to increased production and/or food availability. A brief outline of the agricultural setting should be provided. This will include crops and production by ecological zone, identification of deficit and surplus areas. The discussion should include agriculture, livestock and forest production. Land use tenure should be discussed insofar as it has actual potential effect on production and equity.

A more in depth analysis will be required for the agricultural support systems, national and regional, such as:

- a. Agricultural data gathering and analysis capability;
- b. Agricultural research (status and institutions), particularly regional linkages and linkages with international research centers and donor institutions;
- c. Extension services;
- d. Storage (on and off farm) and marketing infrastructure (formal and non-formal; national and international);
- e. Rural Credit availability and institutions;
- f. Local organizations and the extent of popular participation in decision-making. Political and institutional links between rural areas and the capital;
- g. Agricultural training institutions, national and regional, especially those for training mid- and high-level professionals;
- h. Regional assessment and identification of possible cooperation to develop and process cash crops; e.g. coffee, pyrethrum;
- i. Regional assessment and identification of potential irrigable soils for agricultural development as well as resource conservation schemes, and
- j. Regional development of a fertilizer industry.

2. Health, Nutrition and Population

a. A general description of the major endemic diseases and principal health problems is to be provided, by ecological zone if possible. An outline of Government health care policies showing where priorities lie,

i.e. urban vs. rural; curative vs. preventive, etc., reflected both by resource allocations and practices is required. Is there a noticeable difference in the orientation toward health care by donors than by the governments ?

b. A description of the Government's health services should include the extent of coverage provided, e.g. number of facilities per person, number of inhabitants per health person, and whether location of health facilities (hospitals, clinics, etc.) realistically offer rural populations access to primary health care. The nutritional status of the population should be presented, by ecological zone, if possible.

c. The role of private and religious institutions, which are believed to offer the bulk of rural services, and the extent of their integration into the government health system should be examined, as well as the degree of dependency of the rural health delivery system on external financing. The availability of medicines and medical supplies and their logistics are to be discussed.

1. Facilities for health care, particularly training facilities which lend themselves to regional sharing, should be identified.

2. Demographic trends should be shown by individual country and for a region. A complete exposé of population trends, government population policies/practices, and activities in this area by non-government institutions, will be required. Popular attitudes on family planning by governments, private sector and by general population should be discussed.

3. Human Resources

One of the prime constraints to continued growth is the absence of a cadre of trained personnel, both professions and technical, to carry out development programs and to support the private sector. To determine the human resource potential of the region, both the formal education system (primary, secondary, university and technical/vocational) and the non-formal education system should be examined. The RDSS should attempt to assess the human resource requirements to the end of this century and in the light of this requirement, assess the relevancy of educational systems and training. The human resource needs and priorities, as articulated by the Governments and by the regional organizations, should be presented.

4. Energy

Existing and proposed conventional forms of energy should be described and measured against current and projected demand over the next 20 years. The emphasis of the discussion on energy should be on energy demands for cooking and heating by rural and urban poor and use of energy for development (water supply, irrigation, etc.). The possibility of obtaining energy from traditional sources should be assessed as well as the probability of introducing and developing alternative energy sources in the region.

5. Government development policies and planning structures are to be discussed, and implications for regionally executed/coordinated development examined.

6. Marco-economic framework : A review of the macro-economic situation of the region should be presented including the following:

a. ADP and income distribution ;

b. Internal financial resource availabilities:-local revenue generation, Government budgetary resources (revenues, recurrent expenditures, capital expenditures),-sectoral distribution of recurrent and capital expenditures;

c. Internal resources : - current account balance of payments - donor assistance.

b. Special AID Concerns

1. Absorbitive capacity

Assess the capacity of the individual countries and of the regions to absorb larger amounts of donor funding. Of particular importance will be the discussion on human resource availability and the ability of the government to bear recurrent costs. With regard to the latter, a realistic appraisal should be made of the government's regional organizations to meet both immediate counterpart contributions and their ability to meet recurrent costs required to keep projects functioning when donor financing is completed. If it appears that the Government's regional organizations will not be able to meet their present and future obligations, it should be so stated.

2. Migration and Resettlement

a. Two types of migration should be discussed, normal migration patterns which have evolved over time and are for social/cultural reasons but may be of such duration to alter family and farm life, and more importantly, migration which occurs in times of stress. Migration under stress should discuss patterns of movement in response to political difficulties as well as movement caused by drought, loss of land, etc. Migration both into and out of the region, and into and out of the states of the region should be examined.

b. Among the points to be discussed are the manner of the migration (with entire family, with sons, alone) and whether migration is spontaneous or planned, temporary, long term, or permanent. What are the social effects of migration on immigrants to new collines, on established residents of collines, and on those family members left behind. What are the particular effects on women who are left behind as head of household ?

c. What is the rate of migration of youth toward the cities, both young men and women ? What are they likely to find there ? Does the promise of work and a better life materialize ? Are health and education opportunities greater in the urban areas so as to be an inducement to migration ? Can a profile of the urban migrants be formed ?

d. What is the Government's attitude and policy toward encouragement or discouragement of migration ? Where it is encouraged, such as resettlement in new areas or into villages, is it accepted by the population ? Is it succeeding ? Where migration is discouraged (urban migration) what are the policies which are being put into effect to encourage youth to stay on the colline or to return to it ? Of particular importance will be a discussion of the potential for regional migration.

3. The Role of Women

a. The traditional role of women should be examined. What are women expected to contribute to the family, both within the household and in the field ? Look at women's expected contribution both when she is with her nuclear family (parents) and when married. Examine the economic contribution of women. Are there elements or facts of food production which fall entirely within the domain of women and which are not carried out for them ? What is the division of labor in the house, on the farm, between male and female family members ?

b. What is the role of women in decision-making as it relates to the size of the family, care and upbringing of the children, education and health care of the children, use to which production (proceeds) are put, production techniques to be used, family indebtedness.

c. Outline the changing role of women which can be perceived to be taking place in society relative to the role of women (perceived by the outside community, and by women and men on the collines). What have been the agents of change ? What role has the modern world played (education, radio, increased transport and contact with other and perhaps more urbanized segments of society)? What the fora for social intercourse - markets, clinics wells, baptism, etc ?

d. Do women have access to advantages of education, extension services, credit, equal pay for equal work, as men ?

C. Assistance strategy and implementation

a. On the basis of the preceding discussion relative to individual country development strategies and progress, areas for AID assistance should be identified, particularly those areas of assistance which lend themselves to a regional approach. The degree of regionalism which can be brought into play should be identified, i.e. projects with regional organizations, greater use of AID regional mechanisms, areas of bilateral programs which can be coordinated, and areas which should remain purely bilateral.

b. The regional organizations working the area should be discussed, and a clear picture of their areas of interest and of their staff and financial capabilities to carry out planning and project implementation, presented.

c. AID options for implementation should be examined, including an AID region offices establishing PVO and land grant university linkages to the region for planning and implementation support.

D. Expertise Requirements and Recommendations

1. Agricultural economist (team leader)(Roger Poulin, Bill Garvey)
contractors
2. Agronomist (Heinz Graetz - MASI)
3. Health popluation (Len Robinson, contractor)
4. Human Reources (Matt Seymour AFR/DR)
5. Social Scientist (Mike Horowitz)
6. Macro-economist (Lee Ann Ross, REDSO)

We estimate that team leader will be required for up to four weeks, with others for two to three weeks. The AAO's will provide ground transportation and secretarial support.