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UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION
Vienna International Centre, P.O. Box 300, 1400 Vienna, Austria
Tel: (+43-1) 26026-0 · www.unido.org · unido@unido.org

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Marketing of Agro-Industrial Products in Burundi

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BURUNDI

Report*

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1. Country Characteristics

1.1 General Background

Burundi is a small, landlocked country in Central Africa, between Zaire in the west, Rwanda in the north, and Tanzania in the east and south. It is among the least developed countries in Africa with a GDP (GNP) per capita of $202 ($220) in 1990. The population of Burundi has been expanding rapidly; while the annual population growth rate was under 2 per cent prior to the 1980s, it jumped to 2.8 per cent in the 1980s and is expected to rise even higher to 3.6 per cent in the 1990s. The size of the population was 5.62 million in 1991 and if the current trend continues, it will be 8 million by the year 2000.[1] Burundi is now the second most densely populated country in Africa (202 persons/sq. km). Well over 90 per cent of the population lives in the rural areas. The only major city is Bujumbura, the capital with a population of some 220 000. The next largest town is Gitega with perhaps 20 000 inhabitants.

Burundi has limited natural resources other than relatively fertile land, and access to Lake Tanganyika. Identified minerals are nickel, phosphate, petroleum, vanadium and some alluvial gold but they are not (yet) economical to exploit.[2] The economy is based agriculture, largely on a subsistence level, in which over 90 per cent of the labor force is engaged; it contributes one half of the GDP and nearly all of the exports. The main export crop is coffee, accounting for some 80 per cent of all export earnings. However, international coffee prices have since 1987 dropped an average of 15 per cent per year and the value of this export has declined correspondingly. Fortunately, a modest growth in non-coffee, private sector exports has made up for some of the losses and real GDP per capita has been constant between 1985 and 1990. This, comparatively meager macroeconomic performance is, however, masked by the recent huge influx of foreign aid that is especially visible in Bujumbura. Thus, GNP per capita has increased but this must not distract from the fact that, from a production point of view, the domestic economy has been standing still and that it does not bode well for the future.

Being landlocked, Burundi is vulnerable to transportation and political troubles in the neighboring countries. Thus, though Burundi's own major highways are in remarkable good shape, those in Zaire and Tanzania are not, making the long journey to either ocean arduous. Moreover, the transit formalities are cumbersome, adding to the total cost of surface transportation. Air transport is said to be unreliable although one German exporter of agricultural products to Europe stated that he had experienced problems only once during the several years he has operated in Burundi.

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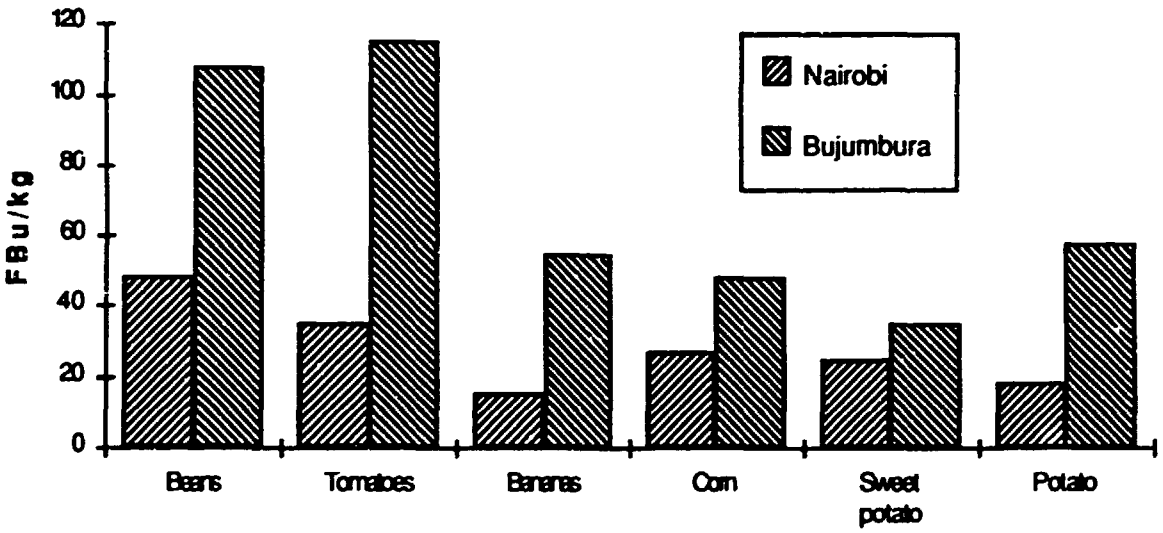
1 The World Bank, *World Development Report 1992*; and The Economist Intelligence Unit, *Burundi Country Profile 1992- 93*;.

2 The World Bank, *Agribusiness Promotion Project, Staff Apparaisal Report*, 1992-07-21, p.1

Under the current adjustment program that began already in 1985, stabilization measures have been introduced, most prices for industrial products decontrolled, and the FBu has been devalued several times to maintain competitiveness against the neighboring countries.[3] Nonetheless, judging from the presence of imported products and the absence of similar, local products in the markets, it now appears that the FBu is again overvalued in respect to the Zairian, Tanzanian, and Kenyan currencies. Judging from the differences between the exchange rates on the informal and the official markets, the FBu is overvalued by some 3 per cent against the Tanzanian and 13 per cent against the Zairian currency. But, the current tendency is towards less overvaluation although the Burundian currency is loosing absolute ground to the two neighbors' currencies.[4]

Chart 1 Prices in Nairobi and Bujumbura During the Week of 1993-04-26, FBu/Kg



Approximation based on chart in Le Renouveau du Burundi, 1993-05-09 that, in turn, is based on information supplied by ISABU

The country is self-sufficient in food and despite the rapidly growing population, the per capita food production and real food prices are stable. The daily calorie supply remains around 93 to 95 per cent of the requirements and the food import dependency ratio is low.[5] The diet is, however, deficient in lipids and animal-derived calories which negatively effects especially the healthy growth of young people. Seasonal shortages do occur and serious child

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3 ibid. p. 1

4 ISAFU, *Programme de Socio-Economie Rurale Commercialisation des produits agricoles; Nouvelles des marchés de Bujumbura*, Message no 40 (courtesy Mr Bruce Smith)

5 UNDP, *Human Development Report 1992*, 1992, p. 153

malnutrition can reportedly be observed in some parts of the country. But, the annual adult consumption of spirits (probably in the form of beer) is higher than in almost any other developing country—13.8 liters![6]—despite the hefty price of one average daily earnings per .75 liter bottle.

Apart from the wide-spread subsistence farming, the government dominates the agricultural sector through large and inefficient public and parastatal, de facto monopolies and monopsonies. This has limited private sector activities to primary production and trade while the public sector has the dominant role in the processing, manufacturing, and exporting business.

Manufacturing contributed 9 per cent of GDP in 1990.[7] Of this share, 6 per cent was contributed by modern manufacturing while 4 per cent was contributed by artisan manufacturing. The manufacturing sector is consumer oriented, producing mainly goods for the local market such as beer, textiles and cigarettes. The public sector dominates, although privatization is now the trend

As in many countries at the same stage of industrial development, food processing (excluding coffee and tea) dominates the sector, contributing 59 per cent of total manufacturing value added and 17 per cent of manufacturing employment. This branch is dominated by one company, BRARUDI, that accounts for more than two-thirds of the branch's value added and one quarter of its employment.

Table 1 Burundian Companies by Branch and Type, 1991

Type	Agro/Fish /Forestry	Agro-Industry	Wood Print Paper Laborat	Chemi-cals	Garments Textiles Leather	Total Resource Based Industries	Commerce & Other Business	Total
Public								
100 %	15	7	1	1	2	26	32	58
Mixed	2	9		2	2	15	18	33
Private Formal								
Bujumbura	71	60	33	21	80	265		265
Interior	2	20	2	1	1	26		26
Private Informal								
Bujumbura		79		30		109	1 668	1 777
Interior		50		20	100	170	830	1 000
All Types	90	225	36	75	185	611	3 225	3 836

Source: The World Bank, *Agribusiness Promotion Project, Staff Appraisal Report*, 1992-07-21, p. 5

6 ibid. p. 151

7 UNIDO, *Industry and Development, Global Report 1992/1993*, 1992, p. A-21

1.2 Employment

The latest available employment data from Service National de'Etudes Statistiques (SNES) and the World Bank provide a breakdown of employment statistics only up to the year 1984. In 1984, the working age population totaled 2.3 million or 52 per cent of the total population. About 133 000 were employed by the modern sector while 320 000 were employed by the informal sector. Modern sector employment data are further disaggregated into permanent and non-permanent employees. Permanent employees totaled 57 000 while non-permanent employees amounted to 76 000 during the year.

Of the 57 000 permanent employees in the modern sector, 8 432 or 15 per cent were engaged in agricultural activities, 12 831 or 22 per cent in the industrial sector and 35 909 or 63 per cent were employed in the services sector. Within the industrial sector, 6 329 and 4 945 were engaged in construction and modern manufacturing activities, respectively. (Employment data for the artisan manufacturing sector were not available.)

Two branches of the manufacturing sector are very important employers. These are coffee and tea processing, and textiles. They accounted for 33 per cent and 20 per cent of the total labor force in manufacturing, respectively. One single large enterprise in each of these two branches, namely, OCIBU (Office des Cultures Industrielles de Burundi) in the coffee and tea processing branch and COTEBU (Complexe Textile du Burundi) in textiles account for most of the employment.

1.3 Skill Gaps

The general education level of manufacturing labor is very low and there is an acute shortage of skilled personnel in Burundi. On the other hand, the manufacturing sector is unable to attract the skilled manpower available in the country. Thus, only 8 per cent of Burundi's skilled labor force work in the manufacturing sector, as compared to 33 per cent in construction, 19 per cent in commerce, 13 per cent in agriculture and banking. Indeed manufacturing ranks only above mining and transport services, although its GDP share is higher than these two sectors combined.

Manpower limitations hinder Burundi's agricultural and industrial development. The quality of the labor force is low and there is an acute shortage of managers, accountants and skilled workers (e.g. building, trade, mechanics, agricultural services etc.). Managers have seldom been trained for the tasks they are performing and many lack professional experience. Low salaries do not attract the most skilled or experienced Burundians. Given the importance of the public sector in the country's economy, especially in the public sector that continues to depend on expatriate skills.[8]

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[8] The World Bank, *Burundi: Manufacturing Industry: Performance, Policies and Prospects*, May 15, 1984.

1.4 Education

Free primary education is provided by the Government of Burundi. Primary education is officially compulsory but secondary schooling is not. Despite this, enrollment remains low in Burundi. In 1989, only 71 per cent of the appropriate age group (60 per cent for girls) was enrolled in primary school and 4 per cent (3 per cent) in secondary school.[9] School enrollment has expanded, but the adult literacy remains low, at 51 per cent in 1990.[10]

Training facilities for adults and unschooled primary leavers are inadequate. A parastatal agency sponsored by UNDP—the General Staff College—serves as the main training institution for both civil servants and private sector employees. It organizes management seminars and workshops, conducts research on management and training issues, publishes its own monographs and studies and maintains an audio-visual library. However, workshops and seminars oriented towards the private sector tend to concentrate on scientific management suitable for large-scale corporations only.

Another important training institution is the Industrial Promotion Centre (CPI). Its main activities include the preparation of feasibility studies, the provision of technical assistance to firms in technological choice, management and training. However, the role of CPI has been redefined as mainly a study unit and its assistance functions were shifted to the Chamber of Commerce and Industry.

The Chamber of Commerce and Industry (CCI) has undertaken training programs to promote human resources development in industry. Its direct link with the commercial and industrial community has made it the best suited institution in the country to handle technical assistance programs in area of industry.

2. Food Production and Supply

The table below gives the latest available data on agricultural food production in Burundi. From these figures, exports (hardly any) and post-harvest losses would have to be deducted, and imports (mainly from Tanzania and Zaire but also from Rwanda, Kenya and South Africa) added in order to arrive at the corresponding domestic supply quantities.

The continuing dominance of corn, beans, manioc, sweet potato and bananas in the Burundian diet is evident from Table 2. Meat and fish supplies (see Tables 3 and 4) are small. In fact, in 1990 only 8 % of the cattle herds, 5 % of the goats, 9 % of the sheep, and 1 % of the available pigs were brought to the slaughter houses.[11] Fish also is surprisingly little consumed, except on the shores of Lake Tanganyika.

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9 *World Development Report 1992*, op.cit.

10 UNDP, *Human Development Report 1992*, op.cit.

11 UNIDO secretariat estimates based on Département de la Production animale data.

Table 2 Agricultural Food Production in Burundi, 1985,...,1991

Crop	1985	1986	1987	1988	1989	1990	1991
Corn	157 000	164 000	173 100	178 100	135 400	167 900	171 800
Rice	20 000	21 000	N.D.	27 000	28 000	40 000	40 200
Wheat	8 000	8 000	8 200	7 500	9 300	8 600	8 800
Sorghum	59 000	61 000	63 000	63 000	68 700	63 700	65 200
Millet	12 000	12 000	12 600	12 600	13 600	13 100	13 400
Beans	301 000	313 000	324 000	301 000	220 900	330 400	338 300
Peas	32 000	33 000	34 000	32 900	29 300	35 700	36 600
Peanuts	13 000	14 000	14 800	14 100	13 900	13 600	13 900
Fruit	32 500	36 000	37 000	39 500	28 800	38 000	38 800
Vegetables	17 000	18 000	20 700	20 000	16 900	13 400	13 300
Manioc	504 000	554 000	573 800	613 900	642 300	569 400	583 600
Sweet potato	555 000	611 000	628 500	647 300	661 800	663 600	680 100
Potato	40 000	42 000	43 000	43 000	32 000	44 500	45 500
Tarrot	112 000	122 000	126 100	128 600	82 400	128 300	131 500
Banana (veg)	510 000	536 000	552 900	586 000	607 200	572 600	586 500
Banana (for bier)	874 000	900 000	932 000	988 500	103 500	974 400	998 500
Sugar cane	7 000	7 000	7 100	7 100	8 000	8 000	8 100

Source: Institut de Satistiques et d'Etudes Economiques du Burundi (ISTEEBU)

Table 3 Slaughter Stocks in 1990, number of heads

Cattle	Goat	Sheep	Pigs	Fowl
34 170	41 863	30 702	9 011	N.D.

Source: Département de la Production animale; N.D.: no data

The industrial fisheries, practiced only on the Lake Tanganyika, is reportedly completely in the hands of Greek immigrants. Both the quantities and the values of the catch have diminished over the years although this may be an illusion since after the introduction (when?) of fixed scales and obligatory weighing in Bujumbura, the accuracy of the data presumably has improved. The sole market for this fishery is Bujumbura. The artisan catches, extrapolated from beach observation by observers from the Service de pêche, appear to have significantly increased in the last few years. This fishery, too, takes place only on the Lake Tanganyika but the catch is sold throughout the lakeside communities. The traditional fisheries are from the shores of Lake Tanganyika and the lakes in the north of the country. There is no reported river fisheries (schistosomiasis may be a reason) and fish farming (tilapia) is minimal (estimated at 60 tons per year).

The domestic supply of fish is, at least in Bujumbura, augmented by significant quantities of processed (smoked, cured) fish from Tanzania. The lack of a cold chain and ice making plants severely restricts the supply of fish to the interior of the country. The local demand for fish is reportedly strong.[12]

12 M. Gaston, Chamber of Commerce, Bujumbura, (Personal communication 1993-05-08)

Table 4 Fish Production by Type of Fishery, 1976,...,1991, in tons

Year	Industrial Fisheries	Artisan Fisheries	Traditional Fisheries	Total
1976	8 702	7 925	3 694	20 321
1977	6 742	3 415	627	10 784
1978	4 017	6 303	4 540	14 860
1979	4 737	4 756	1 754	11 247
1980	6 202	4 261	117	10 580
1981	4 116	3 819	43	7 978
1982	3 641	4 461	29	8 131
1983	3 199	3 147	18	6 364
1984	3 454	2 879	29	6 362
1985	2 591	2 691	86	5 368
1986	2 333	4 716	125	6 634
1987	1 963	2 925	121	5 009
1988	1 545	4 946	181	6 677
1989	1 784	10 336	173	12 293
1990	1 769	14 498	1 067	17 335
1991	1 684	19 376	1 068	22 128

Source: Service des pêches

3. Marketing

3.1 Aggregate Demand

Denote

D = total domestic expenditures on agro-industry products (i.e. the effective demand);
P = population; and
m = expenditures per capita.

Then

(1) $D = Pm$

Differentiating gives

(2) $dD = m(dP) + P(dm)$ or

(3) $\frac{dD}{D} = \frac{m(dP)}{Pm} + \frac{P(dm)}{Pm} = \frac{dP}{P} \cdot \frac{dm}{m}$

Substituting for the income elasticity

(4) $e = \frac{dY/Y}{dm/m}$ where Y = income,

yields

(5) $\frac{dD}{D} = \frac{dP}{P} + e\frac{dY}{Y}$ or

(6) $g_D = g_P + eg_Y$ where g denotes growth rate.

Hence, the growth rate in effective demand for agro-industrial products equals the population growth rate plus the growth in personal income adjusted for the relevant income elasticity. A further fine tuning would be to account for the age structure of the population.

In the specific case of Burundi, the purchasing power has been growing at an annual rate of 1.4 per cent over the past two decades.[13] Private consumption has been growing faster than that (see Table 5 below), indicating an income elasticity well over unitary. But generally, the consumption of food and other agro-industrial goods does not increase with increasing income as fast as does that of other consumer items. On the other hand, the income elasticity for necessity items such as food is higher at the lower end of the income scale where Burundi is than for populations with higher incomes. Thus, in the absence of any specific estimates of the relevant income elasticity in Burundi, and accounting for the very young population, a cautious 'guesstimate' for the parameter e is in the order of 1.1. Thus, assuming a continued growth in real household income of around 1.5 per cent, a population growth of 3.6 per cent, an informed estimate of the growth in aggregate demand for agro-industrial goods in Burundi is

$$3.6 + 1.1*1.5 = 5.25$$

or, say, five per cent per year.

Table 5 Aggregate Domestic Demand: Percentage Change from 1980

	1985	1986	1987	1988	1989p)	1990e)
Private Consumption	+10.5	+4.1	+.3	+13.9	-2.8	+4.4
Public Consumption	+4.7	+3.6	+.2	-3.0	-5.3	+2.6
All	+9.4	+4.0	-.2	+11.2	-3.1	+4.1

p) = provisional; e) = estimate
Source: Banque de la République du Burundi

The demand for beer has proven to be very price elastic. An attempt to raise the tax on beer, and therefore the price, resulted in a loss of revenue for the State as sales volumes declined.

13 ibid. p. 135

3.2 Prices for Agricultural Commodities

According to the Banque de la République du Burundi, the Consumer Price Index for food items in Bujumbura rose from 152.3 in 1988 to 180.5 in 1989 and to 193.9 in 1990 while that for all items rose from 175.5 to 195.9 to 209.7, respectively. Since then, prices have risen further, and still faster: the overall consumer price inflation was nine per cent in 1991.[14] Rural prices have remained essentially stable since 1986 as the production has kept pace with the increase in population.[15]

Table 6 Prices and Quantities of Five Major Food Products In Bujumbura, 1980,...1992

	corn (dry)		beans		Sweet potato		Manioc (fresh)		Bananas (veg.)	
Year	1 000 t	FBu/Kg	1 000 t	FBu/Kg	1 000 t	FBu/Kg	1 000 t	FBu/Kg	1 000 t	FBu/Kg
1980	140.0	35.6	290.0	48.5	500.0		400.0	18.7	400.0	
1981	146.0	24.7	294.0	37.3	497.0		451.0	16.2	457.0	
1982	144.0	26.0	290.0	48.6	490.0	16.6	444.0	15.4	450.0	22.2
1983	148.0	33.2	280.0	49.8	502.0	21.4	511.0	17.8	428.0	24.3
1984	139.0	46.7	241.0	71.8	517.0	34.6	504.0	32.9	441.0	29.9
1985	157.0	48.3	301.0	76.5	555.0	33.0	554.0	30.6	510.0	30.6
1986	164.0	36.6	313.0	62.7	611.0	22.6	567.5	23.4	536.0	26.8
1987	168.2	30.1	320.5	64.9	625.0	19.4	583.3	20.3	549.0	25.1
1988	171.9	36.1	324.6	77.5	641.1	19.5	568.7	20.1	562.7	24.2
1989	169.0	44.8	322.3	99.1	650.5	31.3	569.4	29.2	565.5	32.0
1990	167.0	52.0	330.4	98.6	663.6	42.6	*624.1*	42.3	572.6	38.6
1991	*176.3*	51.0	*331.8*	96.5	*689.8*	45.4	*643.9*	46.8	*605.0*	45.1
1992	*179.8*	50.5	*337.0*	102.8	*710.0*	37.5	*663.7*	36.6	*622.9*	34.1

Linear estimate

Source: UNIDO Secretariat based on data in Dirk Bergen, Isaac Niyonkinzo et Hilarie Nyankirije, *Prix à la consommation de quelques produits agricoles à Bujumbura*, Institut des Sciences Agronomiques du Burundi (ISABU), Publ. no. 168, 1992, various tables

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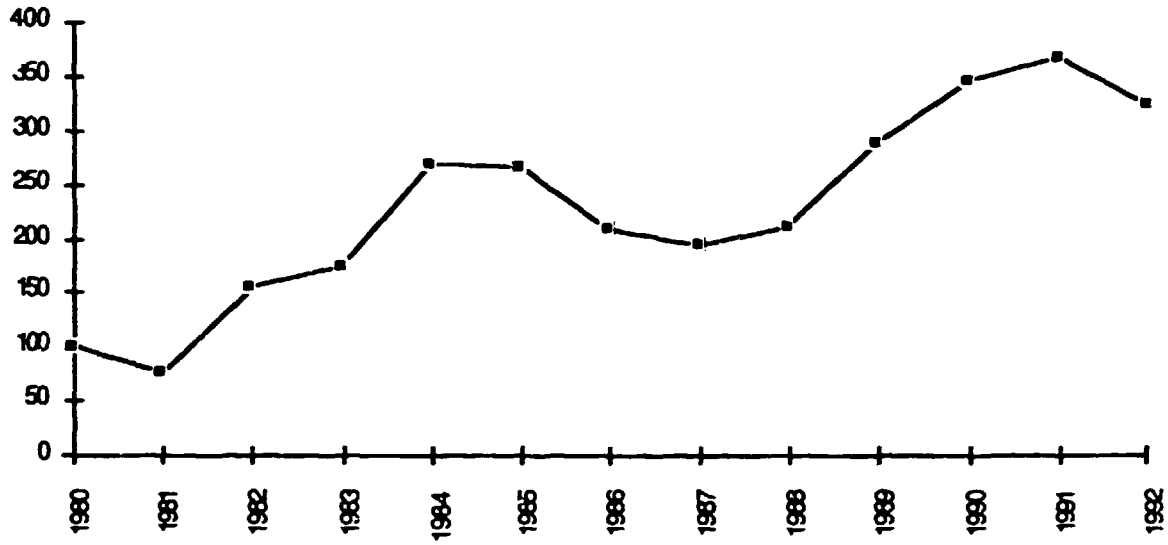
14 The Economist Intelligence Unit, *EIU Country Profile 1992-93 Burundi*, p. 7

15 Dr. Bruce Smith, ISABU (Personal communication 1993-05-10)

Chart 2 Fisher Price Index for 5 Major Agricultural Products, Bujumbura



Source: UNIDO Secretariat based on Table 6

Current prices for certain important staple items on the markets in Bujumbura are shown in Table 7 below. These markets are largely supplied from Zaire and Tanzania as the local products are much more expensive, given the current exchange rates and the fact that Bujumbura is a relatively high income area in the region.

Table 7 Produce Prices on Four Local Markets in Bujumbura on May 6, 1993

	Market; FBu/kg			
Product	Nyakabiga	Ngagara	Kinana	Kanenge
Dry beans	120	120	-	-
White rice	180	170	150	170
Manioc flour	80	68	80	100
Dry manioc	52	-	-	-
Tomato	129	200	200	113
Green banana	40	40	47	41
Corn grain	50	60	-	-
Sweet potato	48	36	40	32
Potato	50	50	50	60

Source: ISAFU, *Programme de Socio-Economie Rurale Commercialisation des produits agricoles; Nouvelles des marchés de Bujumbura*, Messageno 40 (courtesy Dr. Bruce Smith)

Clearly, there is some variation in price among the four Bujumbura markets; this can also be expected to be the case for the local markets in the interior of

the country[16] The price for tomatoes in Table 7 is on the increase due to a diminished supply. But, over the year, the price for tomatoes varies much less than does the quantity offered for sale. Thus, the demand for tomatoes appears to be price elastic: a small increase in price brings about a large increase in supply. Conversely: although the supply varies a great deal over the year, the price does not. The price of rice on the Kamenge market is relatively high due to the presence of one single saleswoman on the day of the inquiry; the other ones stayed away due to the all-day rain.[17] Price information such as that in Table 7 is published weekly in the local paper Le Renouveau du Burundi. Thus, the overall impression is that the local markets in Bujumbura function the way informed, competitive markets are expected to do.

On Saturday, May 8, 1993 prices for certain food products were collected in one of the supermarkets in Bujumbura. These appear in Table 8 below.

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16 Dr. Dirk Bergen's research confirms this assumption (Personal Communication 1993-05-05)

17 ISAFU, *Programme de Socio-Economie Rurale Commercialisation des produits agricoles; Nouvelles des marchés de Bujumbura*, Message no 40 (courtesy Mr Bruce Smith)

Table 8 Prices for Certain Food Items in Dimitri Supermarket in Bujumbura, May 8, 1993

Rice	FBu 420 for 2 kg bag
Tomato paste imported from Italy	FBu 70 for 70 gr can
Orange juice	FBu 845 for 1 liter pack
Nectar juice	FBu 975 for 1 liter pack
Butter imported from Kenya	FBu 800 for 1/2 kg pack
Corn kernels	FBu 170 for 200 gr bag
Milk	FBu 2 290 for 1 liter carton
Long-life milk	FBu 220 for 1/2 liter carton
Bottled water imported from France	FBu 1 300 for 1.5 liter plastic bottle
Salami	FBu 200 per 100 gr
Smoked/canned ham	FBu 300 per 100 gr
Ham "cuit de grasse", local	FBu 180 per 100 gr
imported	FBu 760 per 100 gr
Broiler chicken	FBu 900 per kg
Sangala or Capitaine fish filet	FBu 1 600 per kg
Tilapia, Muluka, Sangala whole fish	FBu 1 000 per kg
Nestle Infant Milk (cereal-wheat)	FBu 800 for 400 gr can, reduced from FBu 1 036
Baking flour	FBu 390 for 2 kg bag
Burundi coffee	FBu 480 for 500 gr bag
"Crème de riz" for baby formula, imported from Belgium	FBu 1 105 for 200 gr can
Corn starch imported from Belgium	FBu 575 for 400 gr pack
Maizena (corn starch)	FBu 650 for 250 gr pack
Dr.ied banana chips	FBu 130 for 200 gr plastic bag
Instant coffee imported from Kenya	FBu 2 660 for 250 gr glass jar
Dr.ied peanuts	FBu 325 for 1/2 kg plastic bag
Dr.ied pasta (unlabeled, looked local)	FBu 285 for approx. 1 kg plastic bag
Milk powder imported from Holland	FBu 1 000 for 400 gr can
Denmark	FBu 900 for 400 gr can
Canned tuna	FBu 650 for 185 gr can
Infant milk cereal powder	FBu 1 220 for 400 gr can
Infant milk wheat-banana powder	FBu 1 265 for 400 gr can
Corn oil imported from Belgium	FBu 900 for 1 liter bottle
Heinz ketchup imported from Holland	FBu 1 365 for 500 ml bottle
Tomato purée imported from South Africa	FBu 610 for 410 gr can
Baguette	FBu 50 apiece

Source: UNIDO Secretariat

On Monday, May 10, 1993 prices for certain food items were recorded on the Jabé local market in Bujumbura. These appear in Table 9.

Table 9 Prices for Certain Food Items in Jabé Market in Bujumbura, May 10, 1993

Manioc flour	FBu 40 for 1/2 kg
Corn flour	FBu 25 for one glass
Sorghum flour	FBu 20 for one glass
Rice	FBu 150–200 for 1 kg depending on quality
Tomato paste, imported	FBu 700 for pack of 12 small cans
Baby food powder imported from Denmark via Zaire	FBu 680 for 400 gr can
MOUSALAK baby food powder (local)	FBu 100 for 1 kg plastic bag
Smoked Capitaine fish, imported from Tanzania	FBu 100 for small heap of small pieces
Smoked Capitaine fish, imported from Tanzania	FBu 300 for whole piece approx. 1/2 kg
Dried, small fry (local fish)	FBu 100 for small heap approx. 200 gr
Bread	FBu 50 per small loaf
Bread	FBu 100 per large loaf

Source: UNIDO Secretariat

There are oral reports that the locally manufactured baby food powder MOUSALAK[18] was, or had been in short supply. The Jabé vendor, however, claimed that he had never experienced any supply problems, and that the product sold well. His mark-up was FBu 8 on his purchase price of FBu 92 per kg, or barely 9 per cent. This is hardly exorbitant as the 100 to 300 per cent margins registered regularly for many agricultural products in Burundi.[19] Such margins are common for traditional, inefficient marketing systems where the buyer usually is in a much stronger position (monopsony) than the typical small-holder producers and sellers. Some times such constellations are caused by share underdevelopment of commercial networks, at times by institutional arrangements such as the infamous "marketing boards" or government fixed purchasing prices.

There is some seasonal variation in prices for staple food items as shown in Chart 3 below. The seasonal variations in the various staples, however, compensate pretty well for each other so that an overall index for staple food items remains quite stable over the year as can be seen from Table 10.[20] Furthermore, the seasonal variations have been decreasing over time.[21]

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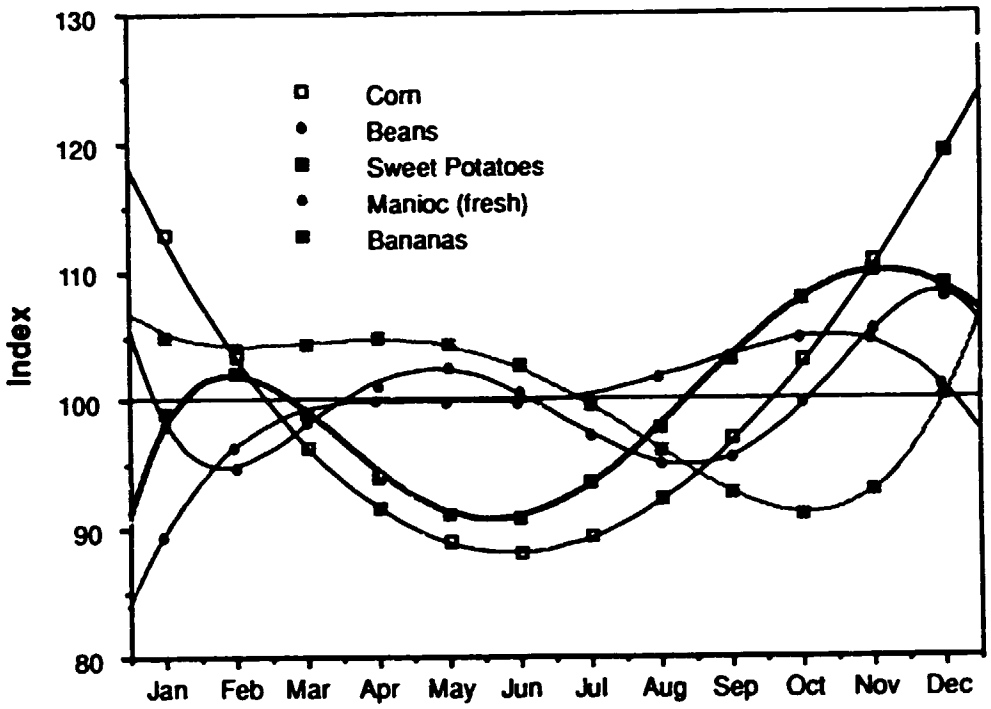
18 MOUSALAKA is based on corn, sorghum, soya, powder milk and sugar; the last two ingridients are imported.

19 Dirk Bergen, *Réflexion sur les "spéculations matrices"*, Institut des Sciences Agronomiques duBurundi (ISABU), Publ. no 167, undated

20 Source: UNIDO Secretariat calculations based on original data in Dirk Bergen, Isaac Niyonkinzo et Hilarie Nyankirije, *Prix à la consommation de quelques produits agricoles à Bujumbura*, Institut des Sciences Agronomiques du Burundi (ISABU), Publ. no. 168, 1992; these data cover periods from 1979 to 1992 except the series for sweet potataoes and bananas that began only in 1982. The overall seasonal food index in Table 7 has

Chart 3. Seasonal Variation in Staple Prices, Annual Average = 100



Source: UNIDO Secretariat

Table 10 Seasonal Food Price Index

	Yearly Average = 100
Jan	98
Feb	101
Mar	100
Apr	99
May	98
Jun	96
Jul	97
Aug	98
Sep	101
Oct	102
Nov	103
Dec	106

Source: UNIDO Secretariat

been calculated as a weighted average over the five staple foods in Chart 3, using 1990 quantities as weights.

21 Dr. Bruce Smith, ISABU (Personal communication 1993-05-10)

3.3 Market Characteristics

Largely because agriculture in Burundi is mainly on a subsistence level, hardly more than an estimated ten per cent of the total agricultural production is being traded. Some of the reasons advanced by the peasants for not engaging more extensively in cash cropping are: low price, uncertainty whether they will be able to sell their products, and a lack of opportunities to exchange their monetary gain for non-agricultural products.[22]

As far as the products destined for the export market is concerned, the system of collecting, storing and forwarding ("commercialisation") is very well organized. But, for local consumption items, whether on the countryside or in urban areas, the system is primitive, unorganized, and economically inefficient. Thus, the price for the same product (beans) has been found to vary between markets more than what the differences in transport cost would suggest. Profit margins of 100 to 300 per cent have been registered regularly. The vendors are unwilling to assume transportation costs and risks unless they are sure there is a firm demand for the product in question.[23] These are indications of inefficient markets and lack of information.[24]

The further development of the livestock business is hindered by the social customs that encourage the keeping of herds that are both too large and under-exploited. Nonetheless, the sales of hides has increased lately and has become a relatively important foreign exchange earner.

3.4 Marketing Constraints

Among the important constraints on the marketing side to the further development of a domestic market for agro-industrial products are

- insufficient supply due to
  - little surplus production;
  - large post-harvest losses and poor conservation methods;
  - demographic pressures and inheritance customs that lead to ever smaller plots of land under one ownership;
  - lack of a tradition that could lead to pooling of resources and crops under a cooperative arrangement;
  - buyers' near monopsony position with consequent large margins;
  - numerous middlemen between the seller and the ultimate consumer;
  - lack of relevant skills;
  - lack of credit;
  - lack of information;
  - lack of regional specialization; and
  - prohibitively cumbersome procedures to set up new commercial ventures;

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22 J. Degand, L.D'Haese et P.F. Ndimira, *Réflexions pour une stratégie alimentaire au Burundi*, Tropicultura 1988, 6.3, p. 122

23 Dirk Bergen, *Réflexion sur les "spéculations matrices"*, Institut des Sciences Agronomiques duBurundi (ISABU), Publ. no 167, undated, p. 6

24 Dr. Dirk Bergen, *Personal communication*, May 1993

- high taxes on equipment, raw material, and trade and commercial activities that all add to the total cost and final price to the consumer;
- low purchasing power;
- high consumer prices due to insufficient competition; and
- poorly developed tradition to sell and compete.

4. Potentials from a Demand Point of View

Because of the lack of firm data and marketing studies,[25] it is not possible to ascertain with a high degree of certainty whether or not a new product would have a commercial success on the Burundian market. The above analysis, however, does point to a number of possibilities worth trying.

The surest bet is on alternative goods to an existing, imported product that is now facing a firm demand in Burundi. Of course, a requirement is that the domestic product is cheaper and/or of a higher quality that the imported one.

A previous UNIDO project has identified seven product groups of interest for further development.[26] They are:

- the slaughterhouse in Bujumbura (now not vertically integrated with down-stream activities is usual elsewhere);
- pyrethrum (because of an unsatisfied demand in the large consumer countries France, Germany and the USA);
- physiological solutions (mainly glucose and serum) that are in great demand and are now totally imported);
- aqua culture (large-size, sweet water crevettes for which there is a ready market);
- medicinal plants and perfumes;
- "Spirulenes"—a very nutritional algae that thrives in certain basins in western Africa; and
- small tools and tableware.

From a food security and micro-enterprise point of view of, the following products or product groups appear to have a demand in Burundi large enough to make industrial-type production economically feasible:

- **Baby food** – there is a proven demand that now is met from either imports or the domestically produced MOUSALAK; the former are expensive, and the latter has had supply and quality problems that appear solvable through better organization. A vigorous consumer education program would need to accompany any increase in production. A dry formula based on soya and a canned product containing boiled fish and vegetables would be worth trying.[27]

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25 The Bureau of Statistics recently has completed a large survey of consumption in Burundi but the data have not yet been released.

26 dFa, *Renforcement de la capacité du centre promotion industrielle (CPI) du Burundi, Projet de rapport final* [sic], Aix-enProvence, mars 1993

27 See footnote 18 for the composition of MOUSALAKA.

- **Bread** – despite the present fairly high price for bakery produced bread, the demand at least in urban areas is brisk. In the past few years the demand for wheat bread has doubled or even tripled. The present fixed price could be increased two times without negatively affecting sales.[28] The nutritional value of the products could be increased through, for example, the use of soya, palm oil or bananas. The market for yeast and baking powder may be just sufficient to justify local production.

- **Processed fish** – the present consumption of fish in all forms is low by most any standards, and reportedly is not due to a lack of taste for fish but to inadequate supply and poor quality; according to some sources, the existing resources are underutilized and the consumption of both smoked and dried fish products could be significantly increased, provided that supply and quality problems are solved.

- **Animal vaccines** – the existing demand is now fairly weak due to financial reasons and too few veterinarians and it is being met 100 per cent from imports; the efficient and hygienic production of such vaccines, however, may not be suited for micro-enterprises.

- **Cheese** – the growing domestic demand for cheese, milk and other dairy products, especially in the relatively affluent market in Bujumbura, is now met from imports, largely because of a totally inadequate and expensive domestic production and distribution system.

- **Charcoal** – is in great demand especially on the countryside but present production methods and distribution are very inefficient. On the other hand, the use of pressure cookers, especially in boiling the staple food beans, would go a long way in reducing the demand for heating.

- **Beer** – it may be possible (not a technical question but from a market point of view) to substitute sorghum for the presently used bananas and malt in the making of beer.

- **Ammonia** – there is plenty of domestic peat available for making ammonia on a micro-enterprise level; urea could also be produced with certain inputs from neighboring countries.[29] Although the production would be relatively expensive, there is a big margin to play with because the transportation costs make current imports very expensive.[30]

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28 M. Gaston, Chamber of Commerce, Bujumbura, (Personal communication 1993-05-08)

29 KEMIRA Inc. in Finland is now shutting down a suitable peat gasification plant and would be willing to transfer/sell both equipment and knowledge to Burundi. Contact: KEMIRA ENGINEERING/OULU. Mr Jorma Koljonen, Dept. Chief, P.L. 171, SF-90101 Oulu, Finland (referring to Mr Bruce Smith, ISABU, Bujumbura); FINNIDA (contact Mr Johan Schalin) could be pursuaded to provide financing.

30 Dr. Bruce Smith, ISABU (Personal communication 1993-05-10)

- **Re-bagging** – on a micro-scale of agricultural inputs such as seeds, pesticides and fertilizers would go a long way to remove present concerns among farmers.[31]

Basically two development strategies appear reasonable. The first one is to undertake market studies to estimate the potential demand (price, quality, packaging, and quantity)[32] and then determine the feasibility of various technological-industrial options. The second possibility is to proceed via pilot installations, starting from the smallest, technically feasible alternative and then gradually expand the production in the direction indicated by the market (price, quality, packaging, and quantity). The latter alternative may be more expensive but less risky, especially when the question is about a new product on the Burundian market, as it essentially would rely, from a market point of view, on its own supply-induced demand. In fact, a variant of this approach was successfully used when the potato was introduced to Burundi.[33] US AID in an upcoming project also intends to rely on a supply-generated demand rather than first attempt to measure the demand.[34] The first strategy may be most appropriate in the case of straightforward import substitution or when the new product would compete directly when an existing product. In these cases, the existing demand can be gauged fairly easily and the new production can be set accordingly.

A major issue in any undertaking in Burundi is the lack of human, not financial capital. The most crucial problem is with services for farmers such as product testing, quality control, distribution, and promotion. Management skills, too, are sorely missing in Burundi.

The history of the MOUSALAKA project is worth recounting here.[35] The Dutch project begun in 1985 and aimed at introducing a new product—a nutritional baby food powder—in the province of Kajanza. Eventually six small production units were established all over the country. Clearly, this is too many units for a small country but the reasons were social, not economic. The project met with an immediate success, 360 tons were produced in the first year, and the operation was profitable. In 1988 and 1989 the production still stood at 389 and 356 tons, respectively. But, since then it has declined sharply due to organizational and management problems at least partly caused by inapt government control and interference. The demand, too, has dropped due to a lack of quality control resulting in a loss of consumer faith in the product itself, little promotion, and competition from less expensive, imported products (for example, from Kenya). The inputs are also strangely costly. The operation is no longer profitable and the annual production was only 95 tons in 1992. One possibility to get the project out of its current problems would be to offer it technical assistance under the umbrella of UNDP's next country program.

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31 Idea curtesy of Mr Bruce Smith, ISABU (Personal communication 1993-05-10)

32 According to M. Gaston, such marketing studies could be commissioned through the Bujumbura Chamber of Commerce

33 World Bank office in Bujumbura, personal communication 1993-05-06

34 US AIDoffice in Bujumbura, personal communication 1993-05-06

35 Freely according to Mr Peter Merckx of DELIPRO, Bujumbura, 1993-05-11

MOUSALAK is being packed in 1 kg transparent, 2-ply polypropylene bags with a simple label between the two layers. It is sold through small kiosks in towns and in larger stores. a certain amount of the production goes to the health centers under the Ministry of Public Health that also has a governing role in the project.

General References:

1. UNIDO, A Background Paper for the Industry Sector Programming Mission to Burundi, 31 January 1990.

2. The World Bank, Burundi: Small Enterprise Apex Project, Staff Appraisal Report, February 25, 1988.

3. The World Bank, Burundi: Structural Adjustment and Development Issues, Background Papers, January 20, 1988.

4. The World Bank, Report and Recommendation of the President of the International Development Association to the Executive Directors on a Proposed Credit of SDR 6.0 million to the Republic of Burundi for an Economic and Public Enterprise Management Project, April 22, 1987

5. The World Bank, World Development Report 1991 - the Challenge of Development; Oxford University Press 1991.