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BURUNDI

POVERTY NOTE

PROSPECTS FOR SOCIAL PROTECTION IN A CRISIS ECONOMY

FEBRUARY 23, 1999

COUNTRY DEPARTMENT 9
AFRICA REGION

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CURRENCY EQUIVALENTS

Currency Unit = Franc burundais (FBu)
FBu 502 = US\$1 (average for 1998)

FISCAL YEAR

January 1 – December 31

UNIT OF MEASURE

Metric system

ABREVIATIONS AND ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
BRB	Banque de la République du Burundi (Central Bank)
DGHER	Direction Générale de l'Hydraulique et des Energies Rurales
EBC	Enquête Budget-Consommation (Budget-consumption survey)
FAO	Food and Agriculture Organization
FRODEBU	Front of Democracy in Burundi (Front pour la Démocratie au Burundi)
GDP	Gross Domestic Product
HIV	Human Immunodeficiency Virus
IDA	International Development Association
IMF	International Monetary Fund
ISTEEBU Institute)	Institut de Statistique et des Etudes Economiques du Burundi (Statistics Institute)
NGO	Non-Governmental Organization
PAM	Programme Alimentaire Mondial (World Food Program)
PPA	Participatory Poverty Assessment
UNDP	United Nations Development Program
UNICEF	United Nations Children's Education Fund
WHO	World Health Organization

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EXECUTIVE SUMMARY

1. In late 1993, Burundi plunged into a deep political and economic crisis from which it is yet to emerge, as a wave of violence swept the country following the assassination of the first democratically elected president in 1993. The security situation continued to deteriorate through mid- 1996, and was accompanied by a 21 percent drop in GDP and a sharp rise in inflation. To add to the woes caused by continued insecurity, following the 1996 coup d'Etat which brought President Buyoya back to power, Burundi has been subject to an embargo by neighboring countries. The embargo was suspended on January 23, 1999. The security situation has shown some improvement since the change of regime, and the new Government is seeking to achieve a real paradigm shift in the peace process through external negotiations with the rebel movements and through an internal political process to increase popular participation in decision-making.
2. It was clear before starting this study that the poverty situation in Burundi was likely to have deteriorated: given the high insecurity and sharp drop in aggregate production, it could hardly be otherwise. The purpose of this study is therefore to give a better picture of the extent and depth of poverty, both in terms of incomes and social indicators, to identify the main causes of changes in the poverty profile, and to evaluate the principal constraints to undertaking poverty reduction initiatives. The study ends by placing on the table for debate a series of priority actions to provide social protection under current constraints.
3. **Changes in the poverty profile.** The poverty profile has worsened rapidly since the beginning of crisis. Rural poverty incidence is estimated to have increased by 80 percent since 1993, with a doubling of urban poverty incidence. Poverty depth is estimated to be among the highest in sub-Saharan Africa. Over 14 percent of the population were displaced from their homes during 1997.
4. This has resulted in a sharp deterioration in social indicators, which had shown a steady improvement in the years preceding the crisis. Malnutrition, measured by wasting among children under 5, is estimated to have increased from 6 percent to 20 percent since 1993. Reported cases of major endemic diseases have increased by over 200 percent, and HIV prevalence is rapidly rising. Primary school enrollment has plummeted since the crisis, from 70 to 44 percent. National social indicators hide an even worse picture at regional level: four provinces had primary school enrollment below 30 percent in 1996-7, reaching a nadir of 9 percent in one of the most violence-stricken areas.
5. The tragedy for the poor is that, at a time of widespread food insecurity, declining monetary incomes and rising health problems, the provision of public services has been drastically reduced. Many schools and health clinics have been destroyed or damaged; health and educational personnel have withdrawn to urban areas to avoid security risks; and agricultural projects funded by donors have closed. It is estimated that over one third of local water supplies have been destroyed or ceased to function due to lack of maintenance since the crisis.

6. **Causes of the rise in poverty.** The crisis exacerbated structural problems in the agricultural sector, where the limits of extensification, declining soil fertility, low use of modern inputs and adverse incentives for investment in the state-controlled cash crop sector had already set in motion a slide in yields. The crisis and the embargo have exacerbated these problems, through looting and destruction of household goods and livestock, population displacement and collapse of distribution channels for agricultural inputs. The embargo has raised the price of non-food goods in rural areas, because of both the rise in import prices and the rise in the petrol price: the impact of this, however cushioned by high food shares in the budget of poor rural households.
7. In urban areas, many unskilled workers have been laid off from formal private sector enterprises, response to a drop in industrial GDP of almost 60 percent since 1992. The urban informal sector has also suffered, as enterprises have closed and laid off workers due to difficulties in the supply of materials from abroad and from the interior of the country, and a drop in demand for services from formal sector and expatriate workers. Rapidly rising urban prices following the 1996 embargo – with inflation at 28 percent in 1997 - have further eroded the real incomes of the urban poor.
8. In addition to population displacement and damage to infrastructure, a sharp drop in the availability of financing for health and education is a major factor in declining access to, and quality of, social services. Government revenue has fallen as a result of the contraction of the tax base, from 20 percent to 12.6 percent of GDP since 1992. The withdrawal of donor developmental aid - from \$30 million per annum in 1990 - 1992 to \$39 million in 1997 - has drastically reduced the funds available for reconstruction and social investment.
9. **The need for action on social protection.** The poverty trends described above represent a slow slide into crisis. Burundi has averted a full-scale humanitarian emergency since 1993, but the population is inexorably sliding - via declining health and nutrition, and rapidly eroding real incomes towards a situation where households have no buffer against external shocks. In other words, many households are the right side of the survival line by a whisker - a bad harvest or another round of population displacements can send them over the edge. However, the majority of the population is still able to respond to development initiatives, since they are still in their own homes, in regions where relative security prevails, and still undertaking their normal economic activities. The same is true for institutional and social capital - the public administration and local institutions are damaged but still holding together, but this may not be the case if current pressures continue. Investment in social protection is therefore an economic as well as a moral imperative: the cost of rebuilding economic, political and administrative systems will increase exponentially the further the social situation is allowed to deteriorate. Increase efforts by donors and by the Government to provide the population with a minimum level of social protection represent an investment in Burundi's human and social capital.
10. However, there are substantial constraints in Burundi's political, economic and policy environment which, if not addressed, are likely to limit the effectiveness of

social protection initiatives. These include: (i) the security situation, which makes it impossible to undertake normal developmental activities in about 20 percent of the territory ; (ii) very limited public resources, due to contraction of Government revenues, the dramatic drop in external aid and the increasing burden of public debt repayments ; (iii) inadequate social orientation of Government budget allocations, with high military expenditure and large subsidies to secondary and tertiary education; (iv) regulatory and incentive barriers, in particular low Producer prices for state-controlled cash crops and lack of land tenure security; (v) limited institutional capacity, due to declining compensation - and as a consequence, professionalism and skill levels - in the civil service, relatively low civil society organization, and the withdrawal of expatriate staff.

11. Firstly, a more stable political and security situation would permit the resumption of the program of structural economic reforms, which was interrupted by the crisis in 1993. This unfinished agenda includes several reforms which are likely to have a direct impact on the incomes of poorer households, namely:

- (i) decreased reliance on export taxation, which should improve coffee producer prices;
- (ii) accelerated liberalisation in the pricing and marketing of cash crops;
- (iii) simplification and reduction of tariffs, which should encourage growth in labour intensive industries.

In addition, a number of reforms which aim to improve fiscal sustainability, the efficiency of the civil service and the poverty incidence of public expenditure remain outstanding, namely :

- (i) improved transparency of budget allocation and execution;
- (ii) further increases in budgetary allocations to the social sectors;
- (iii) rapid progress on privatization, and use of funds generated for public investment, and;
- (iv) civil service reform, including a review of incentive and benefit structures. These reforms are critical for the success of poverty reduction strategies once conditions have stabilised, in providing for a more effective civil service to implement development strategies, and higher current expenditure on the social sectors to staff, equip and maintain investment in infrastructure.

12. Secondly, macroeconomic reforms and a durable solution to the conflict would permit more comprehensive development investment. Priorities for investment under these conditions would include:

- (i) geographical and sectoral expansion of infrastructure rehabilitation and public works programs;
- (ii) programs to address structural reforms in agriculture, including a review of land reform options, investment in marshland drainage, fertiliser promotion, rural finance programs and the strengthening of extension services ;
- (iii) line of credit programs and vocational training for the urban private sector;
- (iv) in health, the development of more sustainable finance mechanisms, an expansion of contraceptive promotion programs to limit population growth, and more vigorous efforts for AIDS prevention,
- (v) in education, the resumption of investment to expand secondary school enrolment and achieve universal primary education.

13. The need for action. The situation remains very fragile for the majority of the population. Greater intervention is urgently needed in social protection to diminish vulnerability to a full-scale humanitarian emergency. Responsible and visionary action is needed by Government and opposition groupings to ensure that political conflict does not further jeopardize the prospects for recovery, and to maximize the poverty orientation of public policy and expenditures. Given the limitations on domestic revenues, a resumption of international aid flows is also desirable to assist in financing initiatives to protect households from the vulnerability caused by five years of insecurity. Without public assistance in rebuilding their asset base, poor households in Burundi remain too vulnerable to income shocks, and are unable to break out of the vicious cycle of declining income health and malnutrition. As a farmer interviewed during the participatory poverty assessment described the problems posed by the downward poverty spiral of the last 1 years: "if the public powers do nothing to break this circle, we will all disappear."

14. Under these circumstances, what can be done? Whilst there is little-to-no potential for growth-oriented development interventions under current circumstances, there is scope to undertake basic social protection initiatives which will assist in preserving Burundi's human and social capital, and in preventing further deterioration of social indicators. Such initiatives should:

- (i) be targeted regionally, to take account of the dramatically different conditions prevailing in different geographical areas ;
- (ii) be designed and implemented through a participatory approach which increases community involvement in project design, and community ownership of local infrastructure ;
- (iii) combine efforts to rehabilitate infrastructure in the more stable rural regions with activities to boost household incomes, to ensure that households can access the services provided

15. Appropriate mechanisms for delivery of social protection initiatives include the use of social fund or community development project instruments, which can work directly with communities to ensure that projects are sustainable and respond to priority needs. Priority activities for social protection under such projects should include :

- (i) "Jumpstart" distribution of inputs and seasonal credit for agricultural;
- (ii) group grants and/or loan agricultural investment and for rural non-agricultural activities ;
- (iii) labor-intensive public works programs for local infrastructure rehabilitation ;
- (iv) credit for informal sector enterprises in urban areas. These will need to be backed up at the national level by efforts to strengthen agricultural extension services ; continued financing of medical imports, and initiatives to strengthen pharmaceutical distribution channels; and teacher training for new unqualified teachers, together with provision of school materials.

16. To ensure a minimum level of sustainability for these social protection initiative the critical short term issues in macroeconomic management are control of the fiscal deficit and an improvement in the structure of government expenditure. In other word ensuring that any gains in social protection are not immediately eroded by escalating inflation, and ensuring that sufficient current expenditures are allocated to the social sectors to protect investment in infrastructure rehabilitation. To be sure,

macroeconomic management will continue to be "crisis management" as long as military instability and embargo persist, but even within these fairly rigid constraints, some actions may be taken to improve outcomes. These include : (i) actions to increase revenue, through the elimination of all discretionary tax and customs duty exemptions¹ ; a concerted effort to collect back taxes; and programs to increase the efficiency and effectiveness of the revenue departments ; (ii) a reorganization of the budget to increase the poverty incidence of Government spending, in particular through a phased reduction in military expenditure ; a reduction in the subsidy to secondary schooling (accompanied by an increase in the school fee) ; and the imposition of hard budget constraints on all public enterprises.

17. What could be achieved if the economic and political context improved?

The political situation remains fluid. the Government has recently launched an initiative to debate revisions to representational structures and constitutional powers, with the aim of reaching a more stable bears fruit in halting civil conflict and political consensus. If this initiative dismantling the embargo, a more comprehensive range of poverty reduction initiatives would be possible.

¹ In particular, there is scope to rapidly increase revenue through the elimination of import duty exemptions, which amounted to nearly 50% of potential import duty revenue in 1993.

I. INTRODUCTION

A. PURPOSE AND METHODOLOGY OF THE STUDY

1. In late 1993, Burundi plunged into a deep political and economic crisis, from which the country is yet to fully emerge. This study aims to evaluate the impact of the crisis on poorer households, to identify current constraints to poverty reduction, and to place on the table for debate a series of priority actions to reduce poverty and inequality. Research for the paper included :
 - a) a participatory poverty *assessment (PPA)* : in eight rural and two urban communes. The PPA used participatory rural appraisal techniques to gather qualitative information on the causes of poverty, the characteristics of poorer households, macroeconomic developments, access to social services, local institutions and social capital, and social protection priorities ;
 - b) *modeling estimations of national and provincial poverty levels.*- using 1990 household survey data together with trends in national aggregate indicators to estimate poverty outcomes ;
 - c) sectoral studies on :
 - (i) the impact of macroeconomic trends on the welfare of poorer households;
 - (ii) the effects of the crisis and embargo on employment ;
 - (iii) trends in the size and composition of external aid ;
 - (iv) the effects of the crisis and embargo on the social sectors;
 - (v) land tenure systems.
2. The study was guided by a "Committee for Poverty Reduction" chaired by the Ministry of Planning, which reviewed terms of reference and preliminary results for the research papers. This report is structured as follows: section A summarizes the changes in the poverty profile of Burundi, covering income poverty, health and nutrition, education and social capital. Section B looks at current constraints to social protection initiatives, and section C lays out a program of action for poverty reduction. Annex I contains the background calculations for the modeled results and Annex 2 a series of tables on which the updated poverty profile was based.

B. COUNTRY CONTEXT (1996)

3. The turmoil in which the country has been immersed since 1993 has taken over 100,000 lives and displaced over 1 million people. Violence of his kind is not new to Burundi: the 3.1%

Box 1: Country statistics

GDP: US\$1 billion
Population: 6,087,9
GDP per capita:\$160
Land mass:27, 834 km²
Population density: 230 k
Population growth rate:

country has seen repeated ethnic massacres since independence (1965, 1972, 1988 and

Rural population:94%
Principal export:Coffee

1991). Yet the onset of the crisis followed the initially encouraging efforts of the Buyoya Government of the Second Republic to initiate democratization. After decades of one party rule, in 1992 a new constitution was passed recognizing multipartyism and democratic elections. The Front for Democracy in Burundi (FRODEBU) gained a convincing victory in the subsequent elections organized in June 1993. Three month investiture, the President and other FRODEBU leaders were assassinated by a group army members. Following this attack, a wave of massacres and reprisals broke across country. Growing insecurity was exacerbated by the dual assassination of the Rwandese and Burundese Presidents on April 6, 1994, and by the political spillover and need to accommodate Rwandese refugees. caused by the Rwandese genocide.

4. Even before the crisis, Burundi was one of the poorest countries in the world, per capita Gross Domestic Product (GDP) less than \$180, high population density, no significant natural resources, and isolated in location far from major transport and trading networks. Despite these constraints, Burundi was one of the rare African countries to have achieved food self-sufficiency up until the late 1980s. The disruption to economy activities caused by the crisis resulted in a 21 percent drop in *GDP*, with inflation rising from an average of 6.6 percent from 1988-92 to 17 percent for 1993-95.

The crisis brought to a halt previous efforts at economic reform via the structural adjustment program which the Government had been carrying out with the support of the Bank and the IMF (International Monetary Fund) since, 1986.²

5. Faced with an accelerating descent into chaos, in July 1996 President Pierre Buyoya was brought back to power through a coup d'Etat. The security situation has shown some improvement since the change of regime, but the new Government has yet achieve a real paradigm shift in the peace process, either through external negotiations with the rebel movements or through an internal political process which would diminish popular support for rebel attacks. To add to the woes caused by continued insecurity, following the 196 coup d'Etat Burundi has been subject to an embargo by neighboring countries. Whilst two partial alleviations have been made to the provisions of the embargo³, the February 1998 sub-regional summit in Kampala refused to consider a total suspension of sanctions. In light of the progress made in the Arusha peace talks, regional leaders decided to suspend the embargo on January 23, 1999. Although the embargo subject to considerable leakage, it had significant diplomatic and economic effects. Si the imposition of the embargo, there has been a further drop in external aid. The Government deficit reached 6.5 percent of *GDP* in 1996, foreign reserves currently cover less than five months of imports and inflation has further risen to an average of 28 per for 1996-97.

² Although reform efforts under ESAF had been weak : exchange rates were liberalized and the budget deficit diminished, but few far reaching reforms had been undertaken before the outbreak of the crisis.

³ Firstly to permit imports of drugs, school materials and food aid, and subsequently to let in agricultural inputs and certain construction materials.

C. THE POVERTY SITUATION BEFORE THE CRISIS

6. The last World Bank study to touch on poverty issues was completed in early 1995, based on data from the 1990 Budget and Consumption Survey⁴. Income poverty levels were already high in 1990, with 36 percent of the rural and 43 percent of the urban population falling below the poverty line. Income poverty was projected to increase in the near future, due to declining per capita agricultural productivity and low potential for accelerated growth in the secondary and tertiary sectors. In social services, however, access for poorer households had substantially improved in the years immediately preceding the crisis. Primary school enrollment was over 70 percent in the early 1990s, having risen from 39 percent in 1982, access to primary health centers surpassed the World Health Organization (WHO) norms, and a public health insurance system was in operation. In summary, whilst economically poor households already faced declining welfare before the crisis, in the social services the Government had established a system which was in many ways ahead of other developing countries with higher per capita income.

II. THE SLOW SLIDE INTO CRISIS : CHANGES IN THE POVERTY PROFILE SINCE 1993

A. INTRODUCTION

1. DEFINITIONS OF POVERTY

7. Poverty may be defined in many ways: based on the level of income of the population, by social indicators such as school enrollment or access to healthcare exclusion from information or representation in decision-making. In this update, poverty profile, we start by looking at the trends in income levels, before proceeding health and nutrition issues and then to education and social capital.

8. The evaluation of trends in income poverty uses the Foster-Greer-Thorbecke series of measures to evaluate poverty levels. For the purposes of comparison, this report uses the same series of measures as the 1993 World Bank Poverty Assessment, and the same poverty line (with adjustment for inflation)⁵. Two measures are used :

- a) the poverty headcount, which measures the percentage of people which under the poverty line. This measure is important because it estimates number of households who are having difficulty in meeting their basic needs ;
- b) the poverty gap, which measures the gap between the average incomes poor people and the poverty line, expressed as a percentage of the line.

⁴ « Burundi : Economic strategy note and poverty assessment », World Bank, January 1995.

⁵ Since the poverty line set in the previous assessment was a relative measure (2/3 mean per capita income), this does not represent the number of poor people in a normative sense, in that it is related to income distribution rather than to the ability to meet basic needs. What is important is rather the change in the poverty measures between the two periods.

This measure is important because it provides an estimate of depth of poverty, or how far poor households are from meeting their human needs⁶.

2. THE ISSUES

9. It was clear before starting this study that income poverty in Burundi was have increased since 1993 : given the high insecurity and the sharp drop in aggregate production, it could hardly be otherwise. The questions that the study therefore answer were as follows. What is the scale of this increase - the extent and depth poverty? How do the trends in poverty vary between rural and urban areas, and between provinces? What are the specific causes of the increase in poverty? In particular the importance of the crisis and the embargo in increasing poverty, in relation to structural problems that pre-date the crisis? What are the principal characteristics of poorer households, how do these affect the targeting of poverty reduction interventions and how are these likely to shape their responses to development interventions? What has happened to social indicators, and to the access of poorer households to social services? What are the barriers that prevent poor households from accessing social services ?

B. INCOME POVERTY

1. RURAL INCOMES

10. The 1993 poverty assessment estimated the poverty headcount for 1992 as 35 percent in rural areas, with the poverty gap at 9 percent. As in the 1993 study, we have estimated income poverty measures for the years following the 1990 household budget survey using a model which employs aggregate data on population and GDP growth to extrapolate poverty outcomes⁷. This type of extrapolation is not as reliable as estimates obtained from a current household survey, but it gives a good approximation of likely trends. In Figure 1 we can immediately see the drastic effect which the crisis has had on the incidence of poverty. Including displaced persons, the poverty headcount has risen to 58 percent, an increase of almost 80 percent in 5 years. Poverty levels in rural areas deteriorated particularly sharply between 1993-1995, and stabilized in 1996. This provides us with a preliminary indication that the crisis had a more severe effect on rural incomes than the embargo, which was imposed in mid- 1996. The modeled estimations of poverty incidence are supported by the results of the participatory poverty assessment. Using self-definition by communities, the PPA found a sharp increase in the incidence of poverty, with the percentage of households deemed to be poor on average 50 percent higher in late 1997 than before the crisis.

⁶ To illustrate why both measures are needed, take the following example. A country's poverty line is 100 francs per year. Both province A and province B have 10 citizens. In both provinces 5 citizens earn less than the poverty line. But in province A these each earn 99 francs per year, whilst in province B the five each only 50 francs per year. The poverty headcount will give the same measure ($5/10 = 50$ percent) for both provinces. But most people would think that province B is poorer. The poverty gap measure will pick this up, since the poverty gap for province B will be $(100 - (250/5))/100 = 0.5$ or 50 percent, whilst in province A it will be $(100 - (495/5))/100 = 0.01$ or 1 percent.

⁷ These extrapolations are based on the POVCAL model, which assumes a 1 : 1 fluctuation of average income with per capita GDP growth, and constant income distribution between different sections of society. The detailed assumptions and inputs used in the model for the projections in this report are found in Annex 1.

[.....] **Figure 1 : Trends in the incidence of poverty (headcount)**

11. The poverty gap measure is also very high, standing at 14 percent (see Figure 2). This latter figure excludes displaced persons, and thus is likely to underestimate the actual depth of poverty in the country, assuming that displaced persons are likely to have lower incomes on average than the resident poor. Thus the change in the two measures, taken together, indicates not that the number of people having difficulty in meeting their basic human needs has dramatically increased, but also that the situation of the poor has worsened, with poor households on average considerably poorer than they were in 1993. Again, the PPA results coincide with those from the quantitative model, with communities describing change in the criteria used to define wealth categories: households deemed poor before crisis, for example, might have possessed no cattle but 4-6 small stock, and are now defined by possessing no livestock at all.

[.....] **Figure 2: Trends in the depth of poverty (poverty gap)**

2. CHARACTERISTICS OF POORER RURAL HOUSEHOLDS

12. In constructing a poverty profile, it is important to identify the principal characteristics of poorer households for two reasons: firstly, this can facilitate the targeting of assistance⁸, and secondly it can provide us with useful information about likely response of poor households to developmental interventions. For example, it is not make sense to use labor intensive public works as the main poverty reduction strategy in rural areas if the poorest households are characterized by a lack of adult family labor.

[.....] **Figure 3 Regional differentials in poverty levels: trends 1990 - 1997**

13. The most notable characteristic in the Burundi poverty profile is the high differential in poverty levels between regions. Figure 3 shows the poverty headcount measure for the 15 rural provinces between 1990 and 1997. The regional trends were calculated by estimating the change in agricultural production per province over the period, varying this 1: 1 with mean per capita income, and assuming constant income distributional shares. Since figures on agricultural production volumes are not very reliable for Burundi during the crisis years, a reasonable minimum and maximum for each province was agreed with Food and Agriculture Organization (FAO). This **The Slow Slide into Crisis** therefore gives a minimum and maximum change in

⁸ Since it would be almost impossible to conduct means tests in order to target assistance to the poorest under current conditions in Burundi, current programs rely on proxy indicators-such as the regional location of households, child malnutrition, marital status. It is important to get an idea of which proxies most closely correlate with income poverty indicators, in order to minimize leakage and non-coverage of programs. It is neither just nor cost-effective, for example, to target female headed households for assistance if these households are not in fact found disproportionately amongst the poor.

poverty incidence, with a fairly high probability that actual levels will fall within this range.

14. The differentials are very high, with Karuzi having almost three times the percentage of households under the poverty line as Cankuzo. The crisis has also caused a change in the ranking of provinces : Cibitoke and Bubanza, which in 1990 were the richest provinces in the country, have experienced a rapid increase in poverty levels to become the fourth and fifth poorest provinces in terms of the measures we have used. These two provinces have been hard hit by conflict and population displacement. Yet the regional differentials in poverty levels cannot be explained by the crisis alone.

One of the poorest regions - Rutana - has been touched little by the conflict, and although Karuzi and Kayanza have suffered large-scale displacements, these provinces were also amongst the poorest before the crisis,

15. This reflects the results of the PPA, where localized differences were even more marked. Five PPA communities noted major increases in the number of houses defined as "poor", two experienced neither an increase nor a decrease, and in one community the percentage of poor households actually decreased over the period. There are three main reasons for these differences aside from the direct effects of the crisis. One is that certain regions suffer from structural poverty problems not directly related to the crisis. Thus communities in areas where land was still available for extensification (e.g. Mugamba, Kigamba) had suffered a lower decline in agricultural production than communities where the limits of extensification were already reached before the crisis (Makebukko, Ruhororo). Secondly, the indirect economic effects of the crisis have affected communities differently dependent on their relationship to the market. Communities where the majority of the poor are net producers of food (e.g. Makamba, Kigamba) have benefited from the relative rise in the price of staple foods, whilst those where the majority of the poor are net consumers (e.g. Ruhororo, Makebukko) have suffered from the price rises. Communities which have continued to produce products which have grown scarce on the Burundi market (beans, meat) have been advantaged by price movements. Thirdly, certain communities have been cushioned from the full effect of national economic trends by the continued availability of transfers from urban areas. In Rutovu, for example, many families had seen their agricultural output decline as in other provinces, but felt that this was partially compensated by continued transfers from family members in the capital.

16. Other characteristics of poorer rural households which are important in formulating poverty strategies include :

a) lack of food *self-sufficiency* : In the majority of PPA communities, participants stated that poorer households were more likely to be net consumers of food than net producers. This means that poorer households will be more severely affected than richer by a rise in food prices. Where the poor are not employed in producing basic foods or where a rise in the price of the principal crops is not passed on to the agricultural wage, poorer households may actually lose out from an improvement in the rural : urban terms of trade ;

- b) *small land-holdings and lack of livestock*.- In the criteria used to define wealth groups in the PPA, differences in land size were commonly cited as determinants of poverty, but the differences were small - typically 0.5 1.5 hectares. Low land productivity, caused by lack of complementary inputs such as livestock, was considered to be a more important characteristic ;
- c) *female headed households*: In the PPA communities female headed households were fairly evenly distributed between wealth categories, confirming the results of the 1990 household survey which found no significant difference in household incomes based upon the gender of the head of household ;
- d) *incomplete households*: PPA communities described an increased probability that poor households would be incomplete, headed by a widow or widower or without an adult family head. The number of child headed households among the poor had increased since before the crisis, and these households are universally placed by communities in the poorest category.

3. CAUSES OF INCREASED RURAL POVERTY: THE CRISIS EXACERBATES STRUCTURAL PROBLEMS

17. Part of the terms of reference of this study was to assess the importance of the crisis and the embargo in affecting the lives of poorer. In assessing the causes of trend income poverty, the participatory poverty assessment and the other sectoral studies therefore aimed to distinguish between :
- (a) factors linked to the crisis but not to the embargo ;
 - (b) factors linked to the embargo ;
 - (c) structural factors which pre-date the crisis.
18. Of particular interest in the PPA results in this regard are the dates communities chose to mark major changes in welfare. Whilst it was left up to the community to choose the date, the study team had expected that all would choose the crisis or the embargo turning point. In fact, none of the rural communities chose to differentiate before and after the embargo, and whilst the onset of the crisis was important for six out of the eight, two of the communities chose much earlier dates to mark a turning point in welfare.
19. Building on the point above, several of the rural PPA communities considered structural problems to be more important than factors linked to the crisis as causes of increased poverty. Even in those communities where the crisis clearly caused a sharp increase in poverty levels, the communities described how these recent problems accelerated a process of decline which had already started before 1993. Table 1, PPA causes of the rise in poverty, in Annex 2 shows the main causes of poverty given by the communities. It is notable that none of the top four causes are clearly imputable to the crisis. However, this will in part be linked to the inherent bias of the PPA, since due to security problems it was impossible to visit Cibitoke, Bubanza or Bujumbura rural, the most insecure provinces.

TABLE 1: COMPARATIVE FERTILIZER USE IN SUB-SAHARAN AFRICA, 1992

Country	Burundi	Kenya	Malawi	Mali	Rwanda	SSA avg.
Fertilizer use	3.7	22.1	50.6	9.2	0.8	14.9

Source: African Development Indicators, World Bank 1996

20. **Structural problems.** The main structural problems identified by communities are land fragmentation and soil degradation, together with adverse incentives for cash crop production, Agricultural growth in the 1980s, which roughly kept pace with population growth, was achieved through extensification rather than improvements in yields. By the late eighties, the limits of extensification had been reached in most parts of the country. Communities described declining yields, due to both the inability to let land lie fallow, and declining availability of manure, as livestock herds were cut down due to the diminution of grazing in favor of arable land. This trend is supported by data on agricultural value added per capita, which dropped 4 percent between 1989 and 1992. Land fragmentation was not compensated by sufficient increases in agricultural productivity: agricultural techniques in Burundi remain extremely basic, using hand-held tools and few modern inputs. Fertilizer use is very low compared to neighboring countries, at around 3.7 Kg per hectare in 1992 (see table). In addition to gentle declines in overall yields, the 1980s also saw change in the composition of agricultural production, as high-nutrient products (in particular beans and animal products) dropped in production compared to low nutrient staples such as sorghum and cassava (see Table 2, trends in production by major crop, annexe 2).

Box 2: Land shortages in Makebuko, PPA
 'Scarcity of land is a major problem for us. we even cultivate on public paths. We cannot make our properties larger any more, so all we can do to is sell out and move to maso (30 km distant). But it seems that even there, things have changed. The local residents no longer need immigrants to help them chase away the beasts which spoiled the fields, and land has become expensive. An immigrant who bought a property in 1984 for 3,500 Fbu has just sold a part of the property for 218,000 Fbu.'

[.....] **Figure 4: Trends in Producer Prices**

21. State control of cash crop marketing and pricing. In cash crop production, state control of the sector has depressed producer prices and created bottlenecks in input provision and marketing. Real producer prices for coffee have declined on average by 37 percent since 1992, for tea by 48 percent, and for cotton by 40 percent. In part, this is due to the increased costs of commercial freight since the embargo, which have squeezed the price received by the state parastatals. But not in full : producer prices were declining even before the embargo. In effect, state control of pricing has allowed the Government to vary taxation policies in these sectors as a way of meeting its financing requirements during the crisis. The constraints posed by state control of the cash crop pricing marketing are further discussed below.

22. **The impact of the crisis.** Highlighting the pre-existing problems in agriculture not to claim that the crisis has had an insignificant effect on income poverty levels: the impact has been devastating, particularly in those regions which have experienced intense fighting and significant population displacement. Agricultural output has declined sharply since the start of the crisis, with 1997 production volumes 2 lower than the average 1988 - 1993, and agricultural GDP per capita declining by percent. Losses have been much greater in some regions than in others, with production in Bubanza and Cibitoke estimated to be 28 percent lower in 1996-7 than in 1990, regional production trends, annex 2). From a situation of food self-sufficiency before 1990, Burundi moved to importing an annual average of \$21 million in food aid in 97. The crisis and embargo also had a severe impact on cash crop production. Whilst production of tea held up well until the attacks on the Teza and Buhoro factories, below) volumes of coffee and cotton plummeted. Fish catches diminished to close in 1996 following a ban on fishing in Lake Tanganyika for security reasons.

TABLE 2: EVOLUTION OF TRENDS IN AGRICULTURAL PRODUCTION

	1990	1991	1992	1993	1994	1995	1996
Fish (tons)	16,440						219
Coffee (tons)	34,925	34,205	37,215	22,991	41,293	25,516	24,512
Cotton (tons)	5,475	7,212	5,365	8,813	4,915	4,593	2,606
Tobacco (tons)	1, is			2,133			411
Tea (tons)	19,036	24,871	28,253	26,156	33,137	35,211	28,100
Food crops (tons)	3,958,000						3,605,000

Source: Ministry of agriculture and livestock

23. The crisis has affected rural incomes through :

(a) *Destruction of rural household capital.* The most immediate impact of violence which has swept Burundi since 1993 has been in the destruct rural household capital. 5/8 PPA communities had suffered destruct housing, accompanied by looting of household goods and livestock burning of trees and crops in the fields. This rapid decapitalization in areas not only impoverishes households directly, but also makes them more the vulnerable to climatic or individual shocks, as they lack savings to cushion against future emergencies. In addition to the killing of

livestock during attacks, many animals have been killed to provide food during the crisis. The Ministry of Agriculture estimates that, overall, the national live herd has fallen from 2.6 to 1.8 million heads since 1990. The loss of livestock also directly affects yields, and therefore agricultural income due to the loss of organic fertilizer.

(b) Population displacement

Approximately 10 percent of the population were displaced at any one time in 1997 (table 5, the population displacement in 1997, the fields annex 2), with a larger

Sept. 1997 proportion -at least 14.4 percent-suffering one or more displacements during the year. This follows previous periods of high population dispersed or movement in 1993-6. This type of continued insecurity has a deep and lasting effect on the poverty situation. Even after households

Box 3: Conditions in the camps

"We do not have enough to eat and our children are sick. There is a school in the camp but there are no school books and we cannot buy notebooks for children. We go to our fields to try and cultivate, but the walk is long and the crops are stolen from before we have a chance to harvest."
Interviewed in regroupement camp, Kayanza,

"In the two years we spent at Gatumba, we had to use all our savings to buy food. Now there is nothing to help us start again"
Interviewed in Kinama, Dec. 1997
Around 480,000 people were displaced, regrouped in 1995, 575,000 in 1996 and 660,000 in 1997. 76 percent of the camps are estimated to have either no or inadequate water supplies; 17 percent have no latrines; and 56 percent no way of evacuating household waste⁹.

return home, agricultural output is affected by the time spent in the camps : households lose the seasonal savings necessary to buy inputs, contract health and nutrition problems which make it difficult for them to work at full capacity, and are more vulnerable to looting and destruction during

⁹ Etude d'évaluation des secteurs sociaux, S. Sahinguvu, 1998.

their absence¹⁰. In addition, cultures such as coffee which have not been maintained during the absence of the population require more labor to produce equivalent yields on their return.

- (c) *Increased risk and decreased investment.* The insecurity caused by attacks and unpredictable population movements is an enormous disincentive to investment in the land, as households are unsure they will be physically present to realize the benefits of land improvements, or that crops planted will survive through harvest.

- (d) *Diminished availability of inputs.* Almost all groups participating in the PPA complained that they had difficulty in obtaining agricultural inputs. The main reason for declining availability of inputs is the breakdown in state agricultural services and donor agricultural projects. Nationally, Burundi had relatively high external investment in agriculture before the crisis, averaging US\$44 million per year or US\$8.4 per capita in 1989 - 1994. This had fallen to US\$0.5 per capita by 1996. External aid before the crisis permitted extensive subsidization of inputs, and a web of extension services offering improved seed, fertilizer, phytosanitary products and veterinary services. The immediate effects of the cessation of agricultural investment and services has been to raise the price of inputs and to render unavailable in many regions selected seeds, phytosanitary products and veterinary care. With low purchasing power and security for investment in rural areas, together with high risk and difficulty in obtaining permits for importation, the private sector has not taken up the slack in supply of agricultural inputs.

- (e) *Barriers to mobility.* Half of the PPA communities noted that they had experienced difficulties in trade and labor mobility. This is particularly important for those communities that traditionally sent migrant laborers to neighboring regions. The unpredictable nature of security regulations, in necessitating the closure of roads without warning and for indefinite periods is a particular barrier to trade and labor mobility,

- (f) *Diminished opportunities for non-agricultural activities.* In the PPA communities the development of non-agricultural activities is a good indicator of the poverty trends in the communities. In the majority of the PPA communities artisanal and commercial activities had substantially decreased since the crisis, due to transport problems and lack of demand for services such as masonry due to the lack of investment in housing since the crisis (table 6, PPA non-agricultural activities, annex 2).

24. The impact of the embargo. The embargo could potentially have impacted the rural poor through several mechanisms: rises in prices for manufactured goods relative to agricultural produce or decreases in prices of agricultural exports (a deterioration in the rural terms of trade); increases in the price of agricultural inputs; or decreased opportunities in informal cross-border trading. To a limited extent this

¹⁰ This remains true even for inhabitants of regroupement camps, who often have limited access to their land during the day, typically at a distance of 10-15 kilometers walk from the camp. Group interviewed in a regroupement camp stated that they had a considerably lower area of land under cultivation and lower yields than usual due to lack of time to cultivate, and in addition experience frequent thefts of crops in their fields due to their inability to ensure adequate surveillance

has happened: poor households in the PPA communities cited a rise in the price of certain basic goods, in particular lamp fuel, second hand clothing and school notebooks, as a cause of increased poverty. In Kigamba the closure of the Tanzanian border has led to a loss of seasonal grazinglands for the pastoral community. However, the effect of the embargo upon the poor has been cushioned in a number of ways:

- (a) *high auto-consumption and food consumption shares.* The 1990 survey found that over 60 percent of poorer households' consumption was on home produce, which is not affected by market prices at all, and almost 85 percent on food consumption. During the PPA, communities stated that this latter percentage had increased since the crisis. If expenditure on non-food items is below 15 percent of total expenditure, the impact of a rise in the price of non-food items will be limited.
- (b) *overall improvement in the rural/urban terms of trade.* The food index has risen faster than the general index, indicating that rural households with a net agricultural surplus have benefited from relative price trends. However, there are two caveats to this. Firstly, the consumer price index is calculated for Bujumbura only, and there is evidence that producer prices for basic foodstuffs in the interior have not risen nearly so fast, as increased fragmentation of markets caused by security conditions and higher transport costs has increased the price differential between urban and rural areas. Secondly, as discussed above, poorer households in most rural areas are net consumers rather than net producers of food. The agricultural wage which constitutes the prime source of monetary income for the poor has risen by less than the price of non-food goods ;
- (c) *state control of cash crop pricing.* The fact that the embargo is filtered through state control of the marketing of cash crops appears to have had both positive and negative effects on poverty. On the one hand, the state cushioned the immediate effects of the embargo on cash crop producers by guaranteeing the purchase of all output at a fixed price, even during the period - August - December 1996 - when this output could not be sold abroad. On the other hand, state control of pricing also means that the state can capture rents from the sector. The state has been particularly dependent on taxation of coffee since 1996, and has replaced the proportional export tax in place before the crisis with ad hoc taxation during the season to meet emergency financing requirements. Together with the necessity for Burundi to accept a low price for its coffee after the embargo because of transport problems, this means that farmers have not received the full benefit of the rise in the international price for coffee.

4. TRENDS IN URBAN INCOMES

25. There is no question that the majority of the poor are located in rural areas in Burundi ; with only 6 percent urbanization, even high poverty rates in urban areas will produce a relatively small number of poor urban households in relation to the massive scale of rural poverty. But this is not to imply that urban poverty is unimportant: urban poverty incidence is extremely high in Burundi in comparison to other sub-Saharan countries, and the urban poor face particular problems

of overcrowding, shelter and employment insecurity, and in addition often lack the community and family networks which provide an informal safety net for the poor in rural areas.

Figure 5 : Trends in urban poverty incidence (headcount) [.....]

26. Using the same measures - the poverty headcount and gap - as were used to track trends in rural poverty, Figure 5 shows estimates of the trends in urban poverty incidence from 1990 to 1997.

The percentage of the population below the poverty line has increased in urban areas even more rapidly than in rural since the beginning of the crisis, more than doubling to 66 percent. Urban poverty trends show a sharper decrease between 1995 and 1996 than in other years, indicating that the urban poor were more severely affected by the embargo than the rural poor.

Poverty depth is also extremely high, at 21 percent. This is much higher than for other sub-Saharan countries, where ranges of 3 percent - 15 percent have normally emerged from household surveys.

27. These poverty estimates are based upon an assumption that all sections of society are equally affected by changes in the aggregate economy. In urban areas, where inequality is higher than in the countryside and poor households are often engaged in quite different economic activities from richer, there is good chance that this is not the case. The poor could be more severely affected by changes in the economy due to the insecurity of their employment and their vulnerability to price movements, or conversely they could be protected by a buoyant informal economy which is not reflected in the national aggregates. In order to differentiate the effect of the crisis and embargo on the poor, we need to look in more detail at the cause of poverty.

Figure 6: Trends in urban poverty depth (poverty gap) [.....]

5. THE CAUSES OF URBAN POVERTY

28. **Unemployment.** The available evidence, whilst limited, indicates that the crisis and the embargo have caused a very significant drop in labor **demand, and** that this has been felt more for unskilled than for skilled workers, and more for the poor than for the non-poor. This is due to :

- (a) *Public versus private sector employment.* The poor are more likely than the non-poor to be employed in the private sector. Whilst the public sector has been protected from the effect of the crisis, the private sector has shed jobs rapidly. This is equally true for public enterprises as for the civil administration: in a survey of twenty formal sector enterprises conducted as part of the poverty note, whilst layoffs in the private sector have been very substantial, no public sector enterprise had laid off a worker (table 7, public versus private layoffs, annex 2) ;
- (b) *Skill levels:* Firms appear to have been more willing to retrench unskilled than skilled workers. In a separate survey of twenty informal enterprises completed for

the poverty note, employers replied that they had tried to retain skilled workers due to their sector- or firm- specific knowledge. This appears to be equally true in the formal private sector: of 993 retrenchments since 1996 in the enterprises surveyed, 93.5 percent were for unskilled or semi-skilled workers. A larger study conducted by the Ministry of Labor in December 1997 finds a similar pattern: whilst unskilled and semi-skilled workers made up only 52 percent of the workforce before the embargo in the enterprises surveyed, they constituted 67 percent of all retrenchments ;

- (c) *Flexibility of employment contracts:* The poor are more likely to work on casual or daily contracts than the non-poor, and thus have less protection from layoff. The Ministry of Labor study finds that casual workers comprised only X percent of the workforce in surveyed enterprises before the crisis, but over 32 percent of all layoffs ;
- (d) *Increased unskilled labor supply:* The influx of refugees from the countryside seeking work, together with the arrival on the labor market of people previously self-employed in Kamenge (see below) has swelled the unskilled labor supply and placed downwards pressure on wages.

29. Informal sector activities. As always, data on the informal sector is hard to come by. But the results of the participatory poverty assessment, and of the limited enterprise survey undertaken for the note, show that activity in the urban informal sector diminished sharply as a result of the crisis and embargo. This is due to :

- (a) Reduction in demand for informal sector goods and services. The informal sector is substantially dependent on demand from formal sector workers for the goods and services it produces. Demand for these has rapidly diminished with the erosion of salaries in the public and formal private sectors: "our clients have no money", as traders interviewed in the PPA put it. In addition, two subsectors of the informal sector were particularly hard hit by the crisis and the embargo - construction and auto service. Demand for new construction plummeted after 1994, with demand for residential building permits on average over 60 percent lower in 1995 to 97¹¹ than in 1991 to 1993.

For people employed in garages and car repair shops, the rise in the price of imported spare parts has din-finished demand and therefore employment, whilst the petrol price rise following the embargo apparently induced people to use their cars less, with consequently lower accident and breakdown rates.

- (b) Destruction of capital and savings. One quarter of Bujumbura which was a hive of informal sector activity before the crisis - Kamenge - was entirely destroyed in early 1995. Small traders, shop owners and artisans lost almost all their assets, and according to the PPA groups have found it difficult to regain start-up capital ;

<p>Table 3: Evolution of wages and piecework remuneration in comparison to inflation</p>
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¹¹ The figures for 1997 are much better than 1995 and 96, indicating some resurgence in confidence.

1992	1997	% change	
Daily wages	250 500	100%	
Selling grilled maize	120 200	66%	
Adult haircut	300 400	33 %	
Child's haircut	200 300	50%	
Revision-moteur	20,0 30,00	50%	
	0		
Fixing suspension	car 7,00 15,00	53%	
	0		
Fixing table legs	2,50 5,000	100%	
	0		
Food price index	97.9 286.4	192%	
General price index	101. 274.6	170%	
	8		
Source: PPA/Ministry of Planning			

(c) Problems in supply of raw materials and parts. The informal sector has also suffered from problems in the supply of raw materials, with garages and construction companies in particular suffering difficulties in obtaining imports after the embargo. Small traders who made a living bringing food from the interior of the country experienced supply difficulties.

Table 4: Economic rents from the embargo: structure of the petrol price

May 1991	May 1997			
CIF Bujumbura	FBU/l	53.69	160.00	
30. Consumer prices. Price rises since the crisis have had a greater impact on the		Taxes, levies and fees	77.81	185.0
131.50	345.00	Wholesale price		
urban poor than the rural poor, due to their		Margin		
15.00	92.99			
Margin (FBU 1991)		15.00	33.86	
lesser dependence on home produce. The		Increase in margin	125%	
Bujumbura consumer price index has risen				

Source: Ministry of Commerce

by almost 200 percent between 1992 and 1997, whilst daily unskilled wages and the remuneration for piecework in the informal sector have risen by less than 100 percent on average (Table 3). In addition the cost of rent, which is not included in the consumer price index, appears to have risen faster than other goods, partly due to the destruction of low cost housing in certain quarters of Bujumbura and the influx of refugees. Again, poorer households are disproportionately affected by the price rises, since the food index has increased faster than the general index, and the poor spend a higher proportion of their income on food than the non-poor.

31. Economic rents generated by the embargo. The embargo creates scarcity inside

Burundi in imported products, thus raising prices and generating economic rents for those importers - legal or otherwise - who are still able to bring products inside the country. Since many of these operations may involve smuggled goods, it is difficult to find data on the scale of the rents generated by the embargo. Yet data on the petrol price gives us some idea of the increased margins which importers - in this case legal - have gained due to the imposition of sanctions. The wholesale and importer margin on petrol has risen from 15 FBu per liter in 1991 to 93 FBu/l in 1997, an increase of 125 percent in real terms.

32. Trends in income distribution. We can therefore conclude that income distribution is likely to have worsened in urban areas, as the poor have been hit harder than the non-poor in the labor market, been more severely impacted by price rises, and the informal economy appears to have been just as severely impacted as the formal by the embargo. Conversely, a small section of the urban elite are likely to have benefited from the economic rents generated by the embargo. Thus the quantitative poverty trend estimates in section 4.2. may under-estimate urban poverty levels.

33. The relative importance of the crisis and the embargo. Unlike in rural areas, the embargo has dramatically worsened the situation of the urban poor. Indeed, the embargo appears to have been a more important cause of rising poverty incidence and depth than the crisis: in the informal sector enterprise survey, 14/20 enterprises believed that the embargo was more important than the crisis in diminishing their revenues and decreasing employment, whilst only 4/20 believed the crisis was more important than the embargo.

C. HEALTH AND NUTRITION

1. A VICIOUS CIRCLE : FOOD INSECURITY, HEALTH AND NUTRITION

34. The rural poor have faced a vicious circle of deteriorating food security, ill-health and malnutrition in the last four years, where declining incomes have caused rising health and nutritional problems, which in turn make less labor available for cultivation and reduce food security. At the same time as health problems have increased, the availability of public health services has sharply diminished.

2. NUTRITION

35. Before the crisis Burundi had malnutrition rates considerably lower than the average for sub-Saharan Africa - 6 percent wasting among children under five. No national anthropometric survey has been completed since 1993, but partial surveys indicate alarmingly high levels of wasting among children. Table shows the wasting rates for children from four provincial studies and one national study of non-governmental organizations (NGO) nutritional centers, undertaken from February 1996 to July 1997. These are higher than for any other African country for which figures are available. Unlike stunting, which develops only after a continued period of malnourishment, wasting is a short-term indicator that can clearly be tied to the effects of the crisis.

3. RISING HEALTH PROBLEMS

36. Rising public health problems and the destruction of local water supplies.

Burundi has also experienced a rapid spread of preventable diseases since the start of the crisis. Common maladies such as malaria, respiratory infections and severe diarrhea have spread during the crisis for a number of reasons¹². Firstly, as noted in the case study, widespread hunger has caused low resistance to disease. Secondly, conditions in the camps naturally favor the spread of disease. Thirdly, destruction of local water supplies causes public health problems. Direction générale de l'hydraulique et des énergies rurales (DGHER) estimates that 35 percent of protected wells and piped water supplies in rural areas have either been destroyed in attacks or are not functioning due to lack of maintenance. Average daily intake of potable water is estimated at 4.6 liters per capita, against minimum needs of 10 liters. In addition to causing public health problems, the lack of available water also causes rural women to walk many hours a day to fetch water, taking time away from cultivation.

TABLE 5 : MALNUTRITION : WASTING AMONG UNDER-FIVE

Burundi	Wasting
Caritas (nutritional centers)	20%
Kayanza	19.9%
Muyinga	19.4%
Karuzi	18.7%
Bubanza	10%
Other SSA	8%
Ethiopia	
Kenya	8%
Rwanda	4.3%
Mali	11 %
	2%
Sudan	14%
SSA average 1990-93	8%

Source: S. Sahinguvu, Jan 1998

37. The effects of deteriorating nutrition and rising public health problems can be seen in the statistics for reported cases of common maladies. Reported cases of malaria in 1995 and 1996 were four times higher than in 1988 and 1989 ; respiratory infections 2.5 times higher ; diarrhea 50 percent higher (table 8, trends in morbidity, annex 2). And reported cases are likely to underestimate real incidence, since the number of health centers and health personnel in rural areas has substantially diminished since the start of the crisis and the cost of treatment has increased. There is therefore likely to be substantial under-reporting. To find around 1 million reported cases of malaria in 1995 and 1996 from a population of 6 million thus argues that in addition to this 1/6 of the population who were treated for the disease, a much higher

¹² One of the PPA communes had also experienced an outbreak of typhus.

proportion is likely to have suffered from the illness during these years without receiving any medical care. Malnutrition and the spread of disease is also likely to have had a drastic effect on survival chances. Reliable figures for infant and maternal mortality are not available, but all the indications are that the factors cited above, together with declining access to health services, are likely to have caused a substantial increase.

Box 4 : Ruganzwa, a widower with five children, PPA

"People cannot eat properly anymore, and we cannot resist illness in this condition. The population knows that taking a cure of quinine will make you recover. But few people have enough money to pay for a consultation at the clinic and buy the medicine. Before, we could sell a few kilos of beans which we were keeping for the future, or sell our seeds to buy the medicine. Or there was always a way to borrow the money and repay it later by selling your labor. But now people have become so poor that it is difficult to borrow 100 francs. Whilst the bill at the health center is never less than 800 francs for each sick person. We have four people ill in our family. Where can I find 3,200 francs? Our situation is unsustainable. To survive, you have to have a production which lets you eat and some money income to care for the family when someone is sick. Now the production is not enough for us to eat properly, which makes it easier to get sick. Then when we are ill there is no way to buy a cure, so we are ill for a long time. During this time there is no way to cultivate our land. The next harvest there is famine in our house. The illnesses reappear. And so on and so forth, until all the family are decimated. If the public powers do nothing to break this circle, we will all disappear".

38. Also of grave concern for the future health situation are the trends in immunization. The graph above shows the evolution of vaccine coverage for four principal contagious diseases in the last decade. After making strong progress in the early nineties, when 97 percent of all children were vaccinated for BCG¹³ and around 80 percent for measles, DPT¹⁴ and polio, immunization rates have now dropped back to 50 percent, adding to the risk of future epidemics.

Figure 7 : Trends in immunisation [.....]

39. **AIDS (Acquired Immune Deficiency Syndrome).** Whilst reliable statistics are

TABLE 6: REGIONAL DISPARITIES IN ACCESS TO HEALTH CARE

¹³ Tuberculosis
¹⁴ Diphtheria, pertussis (whooping cough) and tetanus

Province	Pop. per functional health center	% Of health centers functional	Pop. per param. personnel	Pop. per doctor
Cankuzo	18.497	100%	2.378	83,237
Kirundo	25.978	82%	9.169	116,903
Muyinga	29.020	94%	11.765	145,098
Bujumbura rural	24,190	72%	n.a	108,855
Muramvya	25.744	85%	2.696	128.721
Gitega	34-678	73%	4.067	46-851
Ngozi	28.110	95%	5.458	46.851
Bururi	17.976	86%	2.774	64.201
Makamba	15.347	89%	2.836	65.227
Ruyigi	14.638	100%	2.552	69.531
Cibitoke	65.249	25%	5.724	326-244
Bubanza	25.992	55%	3.561	25 921
Kayanza	39.738	68%	4.378	73799
Rutana	16.308	93%	2.819	57076
Karuzi	37.294	100%	15,257	3 5643

Source : Ngendakumana, 1997

lacking, in particular since the crisis, HIV (Human Immunodeficiency Virus) prevalence appears to have increased rapidly since the early eighties, with an acceleration immediately after the crisis. This is consistent with trends in neighboring countries, and with international experience on the effect of population displacement and camp life on the spread of HIV. Accurate epidemiological figures have been kept on seroprevalence among pregnant women: prevalence rates in urban areas have increased dramatically since the 1980s, from 1 percent in 1983 to 15.1 percent in 1993, to 21 percent in 1997. In rural areas, where estimations will by necessity be more inaccurate because of low rates of prenatal consultations and attended births, prevalence is estimated to have increased rapidly only in the 1990s : from 0.73 percent in 1989 to 5.9 percent in 1997.

4. CRISIS IN THE PROVISION OF HEALTH SERVICES

40. At a time of rising health problems among the population, the tragedy for the poor is that health services have been drastically reduced since the crisis. In part this is due to security problems which have caused destruction of health infrastructure and prevented deployment of health personnel. But the embargo and the withdrawal of donors from health financing other than in an emergency context have also played a major role.

41. Destruction of facilities and deployment of personnel. Before the crisis Burundi had undertaken a major program of infrastructure for health, surpassing the norms laid down by the WHO (one health center per 20,000 inhabitants). In 1997, this had fallen to one center per 25,000 inhabitants in rural areas due to the complete or partial destruction of 60 centers. Large numbers of medical personnel have also been lost to death or exile since the start of the crisis : a 1996 evaluation estimated that an additional 180 paramedical auxiliaries and 57 doctors were necessary to ensure the minimum operation of hospitals and health centers. The number of centers with at least the WHO minimum of three trained auxiliaries dropped from 59 percent before the crisis to 41 percent in 1997¹⁵.

42. **Huge regional disparities.** If the provision of services at national level seems disturbingly inadequate, certain of the regions most hit by the crisis have almost no health service left. This is because of destruction of facilities, but also because personnel have withdrawn to the urban centers because of security problems. Table 6 shows division of health centers and personnel between rural regions. Cibitoke and Bubanza, which are the provinces most hit by the violence, also have the highest ratio of population to doctors. The low ratios for doctors in Gitega and Ngozi are likely to be because these provinces contain large urban centers to which personnel have withdrawn since the start of the violence. It should be noted however, that by no means all of the disparities are caused by the crisis. Musinga, which has very few facilities and personnel, has been very little affected by the crisis, and although Karuzi has experienced large-scale violence and displaced population there has been no destruction of health centers, therefore the crisis is not the explanation of the very low access to services in this area. Conversely, Bururi Makamba and Ruyigi possessed a disproportionate number of clinics and personnel even before the crisis. This implies that any reconstruction efforts should not simply aim to rebuild the status quo, but to build a more equitable system for the future.

43. **Availability of drugs.** Every community participating in the participatory poverty assessment noted that their nearest health center had not had drugs for common maladies for at least one period in the preceding year. Pharmaceutical channels have suffered considerably because of the crisis and embargo. Private sector pharmacies have almost withdrawn from rural areas. NGOs have taken a much larger role in the import and distribution of medicines. The nominal allocation in the Ministry of Health budget has remained constant, whilst the cost of importing drugs has risen from 70 to 90 Belgian francs per kilogram, and the Burundian franc has devalued by over 100 percent. In consequence, the Government budget hardly covers 20 percent of the minimum needs of public hospitals and health centers. In the first period of the embargo considerable problems were experienced in importing medicines, a situation which seems to have been largely resolved in recent months. Ruptures to supplies of health centers are therefore more likely to stem from internal distribution problems. Problems are still experienced with the supply of products heavy in mass, such as serums which were imported by boat or road before the embargo.

44. **Cost of health service.** Health services were heavily subsidized before the crisis, with an insurance system operating in rural are (the, CAM, or "carte d'assurance maladies") which assured at least 25 percent of the population free consultations and prescriptions. The crisis has affected cost recovery in two ways : in

¹⁵ Etude d'évaluation des secteurs sociaux, S. Sahinguvu, 1998

some areas, the cost has actually decreased, as NGO centers which, previously applied cost recovery have reduced or eliminated their charges because of the poverty levels of surrounding communities (see Box 5). However, lack of public resources since the start of the crisis and escalating needs among the population have completely ruptured the CAM system. All health centers covering communities involved in the PPA were charging for drugs despite the CAM. The result of the increase in costs in the communities visited has been to exclude certain poorer households, and also to generate a series of inefficient coping mechanisms among households who could not afford a full course of treatment. These include : sharing one course of medicine - quinine, antibiotics - between two or more people ; self-treatment ; and self-diagnosis, since this avoids the cost of the consultation.

Box 5 : Case study : Gihanga Health Center

Gihanga health center in Bubanza, part of the CED-Caritas NGO network, had an extremely high reputation before the crisis. It provided 65,000 consultations per year, and drew clients from as far away as Congo. Financially the center was completely self-sufficient, apart from the doctor's salary which was financed by the state.

Following the start of the crisis in Bubanza in 1994, the center has lost 20 percent of its personnel. The number of consultations has dropped sharply in response to the population movements in surrounding communities and, according to the director, the cost of services. However, relative to the total number of consultations, the number of endemic maladies has increased, reflecting the poor nutritional state of the population. The center has faced many electricity cuts since the start of the crisis, and the water supply has been destroyed¹⁶. The embargo has worsened the situation. Lack of petrol has caused problems in evacuating the sick and wounded. And the supply of drugs has become unreliable, in particular the serums which are indispensable for treating malaria.

The center has had to abandon its cost recovery policies during the crisis. During the violence of 1994, all sick and wounded were treated free, thanks to gifts of medicine from international sources. Since 1995 the center has tried to reintroduce payment for services, but the economic situation is so difficult and the indigent population so numerous that recovery rates have not passed 50 percent.

D. EDUCATION INSTITUTIONAL AND SOCIAL CAPITAL

1. PRIMARY EDUCATION

45. Enrollement. Gross primary school enrollment has fallen from 70 percent to 44 percent since the start of the crisis. This figure hides an even more marked drop at the regional level. Table shows the trends in gross primary school enrollment by province. In four provinces less than one in four children was enrolled in school in 1996-7, with enrollment in Bubanza reaching a nadir of 9 percent. As with access to health services trends in educational enrollment since

¹⁶ Repaired in July 1997

the crisis have exacerbated existing inequalities: the drop in enrollment rates has been most severe in provinces with low enrollment before the crisis, notably Karuzi, Cibitoke, Bubanza, Kayanza, Kirundo and Muyinga. These provinces, which have never attained more than 60 percent school enrollment contrast with, for example, Bururi which had 99 percent enrollment before the crisis and still has 1.5 times the percentage of children attending school as the national average. As with health, this implies that reconstruction efforts should aim to establish more equitable regional access to primary schooling. The gap between boys' and girls' enrollment, however which was 16 percent in 1992 has narrowed to 9 percent in 1996-9.

	1992-3	1996-7
Total enrollment	70	44
Girls	62	39
Boys	78	48

46. **Quality.** The quality of primary education has also diminished. Around 500 teachers have been killed and a further 1,000 disappeared since the start of the crisis. Aside from the appalling implications for physical security, this has also necessitated the hiring of untrained replacements. In consequence, the percentage of qualified teachers has dropped from 85 percent to 76 percent. In addition, as with the health sector, the deployment of teachers is extremely inequitable between regions. Table also shows the number of pupils per teacher for each province. In some cases low ratios simply reflect the temporary crisis in enrollment - as in Cibitoke and Bubanza. In others, notably Bujumbura-Mairie, the low ratio is due to an increase in the number of teachers rather than a decrease in the number of pupils: certain of these teachers could and should be redeployed to rural areas. Provision of school materials has also been an issue, with the state allocating a declining proportion of the budget to primary materials and donors withdrawing their support from this area. As a result of these developments, primary school promotion rates have dropped from 73 percent to 66 percent since 1990.

TABLE 8: PROVINCIAL DISPARITIES IN EDUCATION

	GPSE ¹⁷	Pupil/teacher	Qualified teachers
Bubanza	9%	27	83%
Bujumbura-Mairie	85%	27	93%
Bujumbura-Rural	56%	54	72%
Bururi	65%	45	83%
Cankuzo	42%	48	86%

¹⁷ Gross primary school enrollment rate

Cibitoke	21%	26	70%
Gitega	58%	50	68%
Karuzi	17%	36	59%
Kayanza	33%	49	74%
Kirundo	25%	57	67%
Makamba	59%	29	79%
Muramvya	66%	37	79%
Muyinga	28%	48	65%
Ngozi	40%	51	69%
Rutana	50%	55	73%
Ruyigi	29%	44	60%
Burundi	44%	42	

Source: Ministry of Primary Education/NGENDAKUMANA, 1997

47. Destruction of facilities. The communities involved in the PPA stressed the problems of rising direct and opportunity costs for schooling rather than physical destruction of infrastructure as causes of declining enrollment. In part, however, this is likely to be because of the sampling bias of the PPA : unable to carry out assessments in the insecure provinces of the West, the PPA did not cover the communities which had seen the greatest destruction of infrastructure. 23 percent of schools were non-functional in 1995-6 (estimated at approximately 20 percent in 1997), with the Government estimating that 105 schools required total reconstruction and 376 partial reconstruction. Even where the school building is still standing, other equipment has often been destroyed: in Buyenzi, parents recounted how the displaced people fleeing to their community had burned the school benches as firewood.

TABLE 9: THE COST OF PRIMARY SCHOOLING

Item	Qu.	Cost	Total
Fees	3	450	1,350
Notebooks	6	400	2,400
Pens/pencils	6	100	600
Uniform	1	1,500	1,500
Total			5,850

Source: Bureau pour l'Education Rural/Bank estimates

48. Cost barriers to education. The effects of declining household incomes on enrollment appear to be large. During the PPA, poorer parents focused on the barriers presented both by the direct cost of schooling and by opportunity cost - the need for the child's labor at home. Needs for additional family labor have undoubtedly risen, as a result of declining incomes and the death or absence of adult family members. But the direct costs of schooling have also risen substantially. Table

shows the minimum direct costs of sending two children to primary school. Whilst in the 1990 survey poor households spent less than 1.5 percent of their income on school-related expenses, the minimum package described here would be equivalent to almost 4 percent of the 1997 per capita poverty line used in this report. At a period when household incomes are decreasing, we cannot expect that households will spend a larger proportion of their income on schooling. In fact, evidence from the participatory poverty assessment and from other countries indicates the opposite: withdrawing children from school to save on expenses is one of the first coping strategies undertaken by households facing declining incomes.

49. One of the consequences of rising costs for state schooling has been an increase in enrollment in the informal school network (Yagamukama) run by NGOs and religious associations. These classes take place only two days per week, and require few materials. In addition, the interval is half that of state schools. But the quality of education received in the Yagamukama is not a substitute for a fully functioning formal system - the classes cover little more than literacy, basic numeracy and religious education.

2. SECONDARY EDUCATION

50. **Enrollment.** Contrary to the devastating drop in primary school enrollment, secondary and tertiary education have continued to expand in Burundi since the start of the crisis. In part, this is as a result of previous inequities in secondary school access: the majority of secondary schools, community and technical colleges are in five provinces - Bujumbura, Bururi, Gitega, Muramvya and Ngozi - which have not been greatly affected by the crisis¹⁸. But it is also due to the disproportionate subsidies that the Government has provided for the secondary and tertiary sectors, which will be explored in more detail in section 6.6.5.

51. **Cost barriers and access of poorer households.** The cost of secondary schooling is prohibitive to most poorer parents. Parents must pay a minimum of 12,000 francs per year, together with minimum additional school-related expenses of approximately 22,000 FBU. For one child, this would be equivalent to 12 percent of the household poverty line used in this report, or roughly equal to the level we have estimated for the total non-food expenses of poorer households. In other words, for a poor household to send their child to secondary school would mean having zero expenditure on health, agricultural inputs, housing, clothing and transport. This is likely to effectively exclude the majority of poor households, apart from those which receive transfers from relatives to assist them in educating their children.

TABLE 10: TRENDS IN SECONDARY AND TERTIARY EDUCATION

	87-88	92-93	96-97
Secondary schools	4%	6.1%	8.1%
University	2,203	4,258	4,394
Technical training	3,397	4,843	5,712

¹⁸ Notwithstanding, 21 secondary institutions have closed since the start of the crisis.

Source: Direction Générale de l'enseignement secondaire et technique

52. Informal training systems. Due to lack of places and high costs in the formal secondary system, the majority of the poor have therefore traditionally gained post primary skills through on-the-job training rather than formal education. There is evidence that these informal systems have been damaged by the crisis. In Buyenzi and Kinama, PPA participants described how, since the crisis, workshops and garages in these areas have not taken on any apprentices: "the owner himself does the work instead". This was considered by the communities to be particularly destructive to social capital, as it deprives adolescents of a chance for legal training and employment, and lays them open to the risk of increased delinquency.

3. SOCIAL CAPITAL, REPRESENTATION AND PARTICIPATION

53. What do we mean by social capital? Social capital refers to the associations, networks and systems of organization and cooperation present in civil society. This can include local associations, extended family networks, and exchanges based on trust, such as informal credit between community members.

54. Social capital. The first approach to measuring levels of social capital is to look at numbers of associations. Perhaps surprisingly, the number of local NGOs and associations seems to have increased in the period after the outbreak of the crisis. A register of local NGOs kept by Africare indicates that, after a slow but steady increase between 1980 and 1992 (127 - 289 associations), the number rapidly increased to 563 by the end of January 1996. Of these, 219 have socio-economic objectives (communal development, rural development, protection of genocide victims, women's development associations, protection of orphans). A further 145 are religious organizations, which often have social programs among their activities. However, local organizations are frequently characterized by a lack of field experience, and by lack of penetration into the remoter rural areas: over 60 percent of the developmental organizations are based in Bujumbura, and of these it appears that many do not have programs in the interior. Furthermore, it is unclear the extent to which these organizations cross ethnic lines, and therefore would be appropriate vehicles to promote local cooperation within and between communities.

55. It is much more difficult to measure what has happened to levels of trust and informal networks since the crisis. Evidence is inevitably anecdotal. But the research done under the PPA indicates that; (i) informal credit systems (both interest-free and usurious) within communities have broken down in many areas, although it is unclear whether how to divide the reasons for this between destruction of savings and breakdown of trust; (ii) communities are becoming more ethnically separate in some areas, as survivors of genocidal attacks move into small towns in many areas to increase their security; (iii) economically-motivated crime has increased, even in rural areas, with many communities reporting that since the crisis they have experienced the theft of crops from the field, which was forbidden before the crisis.

56. Representation and participation. Historically, Burundi has been characterized by a very centralized administrative system," with decisions made in a top down

manner and little involvement of the population in either setting priorities or managing implementation of developmental initiatives. As a result, there is very little community ownership of local infrastructure. During research for the PPA, it was notable that communities did not seem to feel any ownership of local infrastructure such as water supplies: they expressed little anger at armed attacks on social infrastructure, and clearly felt it was the government's - or NGOs' - responsibility to fix problems in the case of breakdown due to lack of maintenance. Thus lack of participation in the design and implementation of local development initiatives appears to have threatened their success in the past, as the community is not mobilized to consider the maintenance and protection of the infrastructure as their own responsibility. In addition, lack of participation may mean affect the efficiency of local projects, through bad design, or the equity of project benefits, in that may benefit only certain groups in the community.

E. POLITICAL, MACROECONOMIC AND POLICY CONSTRAINTS TO POVERTY REDUCTION

1. INTRODUCTION.

57. The drastic changes in the poverty situation since 1993 argue for strong and rapid action on poverty reduction and social protection. Yet many constraints exist in the political, macroeconomic and policy environment which will make social protection initiatives difficult to implement. This section examines these constraints.

2. THE CONSEQUENCES OF THE EMBARGO

58. As previously discussed, there was considerable leakage in the embargo, and its effects were mitigated by the high degree of auto-consumption and low international orientation which characterize the Burundese economy. However, the embargo posed substantial constraints to developmental initiatives for poverty reduction. The costs of development were increased by the higher costs of imported materials. Rising prices caused by the embargo meant that a higher level of nominal income must be generated by poor households to reach the same real standard of living. And the economic rents generated by the embargo worsened inequalities and increased social and political tension in society. In addition, the strategy of export-led growth which Burundi was in the process of developing before the crisis, and which had strong potential for poverty reduction in certain sectors, clearly cannot be the center piece of a poverty reduction strategy under sanctions. Now that the embargo has been suspended, the government should remove barriers to incentives in export sectors.

3. THE SECURITY SITUATION

59. Whilst the internal security situation has stabilized somewhat under the BUYOYA government, several provinces are still effective "no-go" areas for development initiatives. These include the provinces of the north-west (Cibitoke, Bubanza and Kayanza) and the strip of territory along Lake Tanganyika. The situation in Cibitoke and Bubanza appears to have stabilized since the beginning of 1998. However, over the same period, sporadic attacks from rebel groups have moved quickly to different locations within and on the periphery of these areas, with an attack on Bujumbura airport at Christmas and violence in Muramvya during February and March.

Sustainable developmental initiatives in the provinces threatened by these attacks are close to impossible, as many people are displaced, the security of personnel cannot be secured and infrastructure is frequently destroyed soon after being repaired. However, this situation affects approximately 20 percent of the country: the remainder is sufficiently stable for non-emergency social protection projects to be operable. Geographically, the security situation is comparable to that in Rwanda, where the provinces of the north-west have also been sufficiently insecure to halt development initiatives since early 1997.

60. Declining domestic revenues. Government revenues have dropped sharply since the beginning of the crisis, from an average of 20 percent of GDP in 1991-93 to an average of 12.6 percent in 1995-97. This reflects principally the declining tax base caused by the drop in economic activity. Revenues from trade taxes dropped sharply in 1996 after the imposition of the embargo, but have picked up in 1997. The Government is therefore limited in the domestic revenues which it can allocate to poverty reduction, although, as argued below, current budget allocations do not make the best use from a social protection perspective of existing resources.

61. The withdrawal of external aid. Before the crisis Burundi received substantial external development aid, which plummeted from an average of US\$288 million in 1990-2 to US\$39 million in 1997¹⁹. As shown in the graph, since the beginning of the crisis, donors have both diminished the scale of their aid and changed its composition, from primarily developmental to primarily humanitarian aid. In 1992, external grants represented 34 percent of state expenditure, whilst by 1996 this had declined to 13 percent²⁰. In addition, this drop has not been evenly spread between sectors : investment infrastructure and health has diminished by around 60 percent between 1990 and 1996, whilst aid for education and social development (including water and sanitation) have dropped by 84 percent, and aid for agriculture by 92 percent. A substantial part of this (15 percent 1990 - 1992) was in balance of payments support, and the cutback in aid has therefore affected not only the investment but also the operating budget of the state.

62. The public debt. The public debt currently constitutes a considerable burden on public finances and the ability of the Government to undertake a reconstruction program.

The debt stock has moved from 91.5 percent to 103.8 percent of GDP since 1992. 54 percent of this is IDA (International Development Association) debt. Debt service in 1995 was 11 percent of the budget and 26 percent of all export receipts, rising to 48 percent of export receipts in 1996. The government has continued to make scheduled repayments to its multilateral creditors since the start of the crisis.

4. ECONOMIC AND FINANCIAL INSTABILITY

63. The suspension of external aid has led to increased macroeconomic instability. Burundi has moved from a primary budget surplus of 4.8 percent of GDP in 1992 to a deficit of 1.6 percent of GDP in 1997. The trade deficit is now estimated at US\$37 million, with the current account deficit at US\$81 million or 4.1 percent of GDP.

¹⁹ Table 10, trends in external aid by sector, annex 2.

²⁰ IMF, septembre 1997

Inflation rose to 28 percent in 1997, coming dangerously close to the level at which international experience unambiguously teaches that there is a real danger of inflation slowing growth²¹. In order to face its financing deficit, the Government has had recourse to increased credit from the central Bank, with the money supply increasing by 23 percent in 1996. This is likely to have a lagged inflationary effect, further jeopardizing macroeconomic sterility in coming months. In addition, the inflation tax disproportionately penalizes the poor, who spend a higher proportion of their income on consumption.

64. The higher current account deficit, together with a drastic reduction in foreign aid, has resulted in a depletion of foreign exchange reserves to cover around five months of imports. In November 1997, the Government devalued the Burundi franc by 15 percent, reducing the discount in the parallel market to 25 percent, and the central Bank introduced import restrictions through requiring a 25 percent deposit on the value of imports and centralizing the management of foreign exchange.

5. PUBLIC EXPENDITURE

65. Whilst the drop in domestic and external revenues has placed the Government in a difficult position with regard to financing basic services and reconstruction efforts, the problems of diminished revenues have been exacerbated by choices made over the allocation of public funds, which have not been strongly oriented towards poverty reduction in several respects. Given limited access to external financing, it is critical that optimum use is made of existing domestic and external resources for poverty reduction.

66. **Military expenditure.** Military expenditure rose from 22 percent of current expenditures in 1992 to 33 percent in 1997. Whilst exact numbers in the military are hard to come by, it is estimated that the armed forces now number 24,000 - 26,000. Strong defense and a halt to acts of violence inside the country are critical for poverty reduction : indeed many groups participating in the PPA, particularly women, cited peace as their primary criteria of well-being, and noted that they had seen increased stability in 1997 compared to preceding years. But the maintenance of such high degrees of military spending blocks an increase in expenditure on social protection, and containment of unrest through a heavy military presence is not a durable solution to societal conflict. With no clear military outcome to the conflict in sight, it is important that the Government seek all possible political solutions, including both external negotiations and internal actions to increase the participation of the population and the legitimacy of the state, to end the conflict. If successful, this should enable a phased demobilization program, and a reduction in the defense share of the current budget.

67. **Allocations to the social sectors.** In assessing public expenditures from a poverty perspective, it is important to estimate the incidence of different categories of expenditure on the poor - i.e. from which expenditures do the poor gain the greatest benefit, through their access to the services provided? In Burundi's current situation, the widest poverty incidence is likely to come from primary health spending, and agricultural investment and services. Education spending will currently have quite a low poverty incidence due to the decline in enrollment rates, which mean that

²¹ Bruno and Easterely, 1996

approximately 56 percent of all households, probably including a disproportionate number of the poorest, do not benefit at all from this service. But educational expenditures are still critical for poverty reduction, assuming that enrollment rates can be quickly recovered and access will be open to the poor, because they constitute the future human capital of the poor.

68. The social sectors have borne the brunt of reorganization within the Government budget. Allocations to the social sectors have decreased from 28.2 percent to 22.4 percent of the combined budget between 1995 and 1997²² despite rising health problems and plummeting primary school enrollment. As a percentage of GDP, education expenditures have declined from 4.6 percent to 2.7 percent between 1992 and 1997, and health expenditures from 1.2 percent to 0.5 percent. In per capita terms, expenditure on education in 1996 was US\$6.24 per capita and on health US\$1.24 per capita. In part this decline is due to the withdrawal of donor support, as the share of external financing in investment projects in health and education was very high before the crisis. But it also relates to policy choices made by Government, to prioritize sustaining levels of personnel in all sectors in the face of declining service provision, and, as noted above, for continued high levels of military spending.

69. Allocations to the secondary and tertiary education sectors. Allocations within the education budget do not have a high incidence on the poorest households, due to the large subsidies provided for secondary and tertiary education. 65 percent of the education budget in 1997 was allocated to secondary, university and technical schooling in 1997, up from 53 percent in 1992. Secondary schooling rates are low in Burundi and in normal times would pose a bottleneck to human capital development due to the low promotion rates between primary and secondary schools caused by lack of places. This undoubtedly formed the basis behind plans to rapidly expand secondary places, which date from before the crisis. But this allocation is inappropriate at a time when the primary education system is in crisis, having seen enrollment rates almost halve over five years. Secondary enrollment, in contrast, has doubled during the crisis. A similar situation pertains with regard to university education.

70. The state is subsidizing a far larger proportion of the cost of secondary school education than of primary education. The cost of sending a child to school is composed of the private cost (what households must pay in fees, materials and other school related costs) plus the public cost. The cost to the state of sending a child to school was 10,835 FBu for primary schooling, 70,805 FBu for secondary, and 733,044 to keep a student at the university. Per child, families with children at state secondary schools pay 12,000 FBu a year, which covers basic upkeep of the child for 9 months. In addition, they would pay around 22,000 FBu p.a. for school materials to meet the school's requirements, and to pay for the child's transport to school. Parents of primary school children pay 1,450 FBu per child in fees, but then have additional expenses of 4,500 FBu per year in school materials, plus of course the full costs of the child's subsistence. Table shows the result of this calculation: state subsidies cover around 35 percent of the total costs of upkeep and education for primary school children during the school year, but around 65 percent of the equivalent costs for secondary school pupils. This is a regressive subsidy, since the average income of parents sending their children to primary school will be much lower than that that

²² IMF, septembre 1997

of parents sending their children to secondary school. In addition, given higher secondary school enrollment rates since the crisis, demand for secondary schooling does not seem to be very elastic to fee levels within a range, therefore giving space to consider diminishing or withdrawing the subsidy without too severe an impact on enrollment rates.

Table 11 : State subsidies in primary and secondary education		
	Primary	Secondary
State expenditure	10,835	70,805
Fees	1,350	12,000
Other HH expenditure ²³	4,500	21,700
Child's subsistence ²⁴	14,500	4,500
Total	31,185	109,005
% state subsidy	35%	65%
Source: Bank estimates		

71. The sustainability of public education financing is also threatened by the low allocations to recurrent materials and maintenance. 98.9 percent of the 1997 budget for primary education was allocated for salaries, leaving no room for the maintenance of primary school infrastructure or the provision of school materials. Combined with the decline in both the real value and payment rates of the primary school fee – which is destined for maintenance - and in external funding for school materials, this indicates severe under-funding of these items.

6.REGULATORY AND INCENTIVE ISSUES

72. Regulatory barriers to poverty reduction include :

- (a) High and variable export taxation on cash crops: In 1994/95 and 1995/96 the state recuperated a tax of, respectively, more than 20 percent and more than 50 percent of the price received by OCIBU for fully washed coffee. High levels and high variability in the taxation of cash crops in order to raise emergency revenue constitutes a considerable disincentive to production, as noted by farmers involved in the PPA who had neglected their coffee trees in favor of more profitable crops.
- (b) *Pricing and marketing of state controlled cash crops* : Tight state controls on the production and marketing of cash crops tend to depress producer prices and limit incentives to increase production (see Box).

²³ Includes uniform, notebooks, schoolbooks, other materials, and transport for boarding pupils.
²⁴ Annual per capita income*no. of months at school (9)* adult equivalent scale for primary (0.4)

(c) *Land tenure*. Private land rights in Burundi are regulated by Decret 100/0 10 1989, with measurement of plots and access to springs falling under ordonnance 42/12 1950, which was passed under Belgian colonization. However, written titles exist for only a tiny proportion of occupied land, due apparently primarily to the lack of knowledge of the law and the benefits of titling in rural areas. The lack of written titles poses a number of constraints to poverty reduction :

- the majority of land-holdings may not be used as a guarantee for credit;
- land disputes (over 70 percent of all disputes pending in the civil courts) appear to be exacerbated by the lack of written records on border delimitation ;
- widows have only limited protection and no control over the disposal of land under customary law.

73. Whilst no studies on land tenure have been conducted since the crisis, it is likely that conflicts over land have been exacerbated by the enormous population movements and the death of many adult family members²⁵.

7. INSTITUTIONAL CAPITAL

74. **The civil service**. Institutional capital refers to the organizational systems, skills, knowledge and ethos which an institution builds up over time. The most obvious site of institutional capital in Burundi is in the public sector. The Burundese civil administration had built up a strong reputation before the crisis, characterized by :

- (a) relatively high skills levels in relation to neighboring countries ;
- (b) efficient administration and information collection systems ;
- (c) a relatively informal hierarchical structure, which allowed innovative ideas to
- (d) make their way up from the lower ranks ;
- (e) low level of corruption.

75. This institutional capital is now at risk. Table 12 shows the trends in average salaries in civil service. By 1997, average salaries in the civil service were over 50 percent lower than in 1993 in real terms. This is comparable to the overall drop in secondary sector GDP over the same period. Thus whilst civil servants have been relatively protected from dismissal since the crisis, they have taken a drop in real incomes commensurate with the overall contraction in the economy. Whilst a reliable breakdown of salaries by grade is not available, the trends in average salaries also imply that many households dependent on public sector wages will now fall below the poverty line. In effect, any civil servant with two or more dependents, earning at or below the average 1997 salary, would find him or herself below the poverty line. This has led to widespread demoralization, a high risk of corruption, and the diversification of civil servants into secondary economic activities which deflect their energies from the public administration. Further, the "crisis orientation" of Government since 1992, where much attention must by necessity be focused on political and military

²⁵ Evariste NIYONKURU, « Contraintes foncières du développement de l'agriculture au Burundi », march 1998, research for poverty note

developments, appears to have diminished energy and efficiency in the economic and social sectors. As an example, no overall socio-economic planning or policy documents were produced between 1993 and 1997.

TABLE 12 : EVOLUTION IN CIVIL SERVICE SALARIES 1992 - 1997
(MILITARY EXCLUDED)

	Wage bill (FBu m)	Complement	Ave. salary p.a.	Ave. salary p.a. (1990 FBu)	% change /93
1993	10.4	28,607	363,547	325,468	
1994	9.4	29,413	319,587	249,677	-23.3
1995	11.0	30,536	360,231	235,445	-27.7
1996	11.8	28,805	409,651	211,815	-34.9
1997	11.8	29,753	396,599	157,945	-52.5

Source: Ministry of Finance

76. Government involvement in poverty reduction. Despite these difficult conditions, the civil service has maintained its core functions and has a reasonable level of poverty orientation. The civil administration includes local authorities for each commune, headed by an administrator, who have continued to take responsibility for limited local social and developmental initiatives since the crisis. These include the identification and protection of indigent households and the organization of local community works projects. At national level, the Ministry of Planning chairs a "poverty reduction" committee with participation from donors, in addition to the poverty reduction element in the work of many of the sectoral ministries, such as health and education.

77. NGOs and civil society. As noted in chapter 5, whilst there are a large number of local NGOs most of these have little experience in development project implementation. However, there are local institutions which could be involved in the design and delivery of poverty reduction initiatives: for example, many communes dispose of a "comité des ressortissants", composed of people now resident outside their commune who work to fundraise and provide services back in their commune of origin. In addition, a large number of international NGOs operate in Burundi, and have taken a larger role since the crisis. Many of these operate primarily food distribution activities, but there are also 17 NGOs undertaking rehabilitation initiatives, 13 providing water and sanitation infrastructure, 15 with projects in the health sector, 8 in education and 10 in agriculture.

Developmental - as opposed to purely humanitarian initiatives - are carried out by NGOs in all provinces of Burundi, including the most violence-stricken. At the end of 1997, international NGOs employed 92 expatriate and around 700 local staff. Despite reasonable coverage and implementation capacity, NGOs remain underfunded for developmental activities. In addition to state and NGO operations, two major donor-

funded projects - the United Nations Development Program's (UNDP) continuum program and the Bank's Burundi Social Action Program-have well-established project units with experience of conducting local infrastructure projects, in the case of the continuum in close liaison with local authorities. Different development actors, despite recent initiatives by the Government and the UN to establish new coordinating structure-, (ii) technical, management and financial skills are weak ; (iii) there is very little in-country experience of participatory approaches. New initiatives for poverty reduction and social protection will therefore have to take account of the time and resources necessary for local capacity building.

III. A FRAMEWORK FOR SOCIAL PROTECTION STRATEGIES

A. THE NEED FOR ACTION ON SOCIAL PROTECTION

78. The poverty trends described above represent a slow slide into crisis. Burundi has averted a full-scale humanitarian emergency since 1993, but the population is inexorably sliding- via declining health and nutrition, and rapidly eroding real incomes - towards a situation where households have no buffer against external shocks. In other words, many households are the right side of the survival line by a whisker - a bad harvest or another round of population displacements can send them over the edge. However, the majority of the population is still able to respond to development initiatives, since they are still in their own homes, in regions where relative security prevails, and still undertaking their normal economic activities. The same is true for institutional and social capital - the public administration and local institutions are damaged but still holding together, but this may not be the case if current pressures continue. Investment in social protection is therefore an economic as well as a moral imperative: the cost of rebuilding economic, political and administrative systems will increase exponentially the further the social situation is allowed to deteriorate. Increased efforts by donors and by the Government to provide the population with a minimum level of social protection represent an investment in Burundi's human and social capital.

B. OUTLINING A FEASIBLE STRATEGY

79. Despite the compelling arguments for social protection, the constraints highlighted in Section I to the implementation of social protection initiatives constitute very real difficulties in taking action. What type of interventions can work under these circumstances? The poverty analysis indicates that successful interventions will take the following principles into account.

80. **The need for a regional approach.** The huge regional disparities highlighted in the poverty profile indicate that poverty reduction strategies should be designed to fit the needs of different groups of provinces, rather than a national "one size fits all" approach. One way of doing this is to group the needs of provinces as follows :

- (a) "*Stable " rural regions:* those where population displacement is low and the crisis has had relatively little impact. In these regions structural poverty problems are more important than factors linked to the crisis, together with pre-crisis inequities in the provision of social services ;

- (b) *"Post-conflict " rural regions²⁶ where there was low income poverty incidence before the crisis:* In these regions the primary problems are destruction of infrastructure, population displacement, and low pre-crisis access to social services ;
- (c) *"Post-conflict " rural regions where there was high income poverty incidence before the crisis:* In these regions, the problems of the category above are compounded by particularly low asset levels among the poor and serious structural problems in agriculture.
- (d) *Regions under conflict:* these are regions where the persistence, frequency and scale of conflict make any interventions other than humanitarian aid, some input distribution and the most basic maintenance of local infrastructure impossible to implement.
- (e) *Urban areas.*

81. **Risks.** There is a clear risk that regions deemed "post-conflict" now could become "in-conflict" at a later date, thus reversing social gains made. However, this is not an entirely exogenous risk: the presence of poverty reduction initiatives in these areas, provided that they foster local cooperation, should in itself reduce the risks of renewed conflict, by giving people a stake in developmental achievements and the concrete experience of local cooperation for a material objective.

This does not remove the risk, and implies that interventions should be carefully selected based on the security situation, but it argues that the potential returns are worthwhile.

82. **The need to prioritize between sectors.** Limited resources and strong constraints to economic growth mean that there is a need to prioritize investment. In the economic sectors, the fastest route to poverty reduction will be through the agricultural sector, both because the majority of the poor are dependent on agriculture as their primary source of income, and because a focus on boosting the production of basic foods can be successful even under embargo conditions. Investment in the health sector and in primary education is a critical priority to prevent further backsliding in social indicators.

83. **In the social sectors, the need to combine efforts to increase service provision with initiatives to boost household incomes.** Whilst destruction of infrastructure is a problem, in many areas the main barrier to poorer households accessing social services is low household income levels. Initiatives to rebuild or strengthen social infrastructure will therefore need to be accompanied by activities to boost household incomes, to ensure that households have sufficient revenues to access these services. Strengthening the social safety net for very poor households, through reinforcement of communal programs which provide free services to indigent households, is also a priority.

²⁶ Regiond which have been hard hit by violence and population displacement, but where relative security now prevails.

84. Macroeconomic framework To ensure a minimum level of sustainability for poverty reduction initiatives, the critical short term issues in macroeconomic management are control of the fiscal deficit and an improvement in the structure of government expenditure. In other words, ensuring that any gains in social protection are not immediately eroded by escalating inflation, and ensuring that sufficient current expenditures are allocated to the social sectors to protect investment in infrastructure rehabilitation. To be sure, macroeconomic management will continue to be "crisis management " as long as military instability persists, but even within this fairly rigid constraint, some actions may be taken to improve outcomes. These include : (i) actions increase revenue, through the elimination of all discretionary tax and customs duty exemptions²⁷ ; a concerted effort to collect back taxes ; and programs to increase the efficiency and effectiveness of the revenue departments; (ii) a reorganization of the budget to increase the poverty incidence of Government spending, in particular through a phased reduction in military expenditures ; a reduction in the subsidy to secondary schooling (accompanied by an increase in the school fee) ; and the imposition of hard budget constraints on all public enterprises.

Within the framework of improved overall macroeconomic management, a social protection program, based on the regional approach outlined above could, be designed to provide the following services :

Nationally

- (a) A program to strengthen health services, providing continued financing for medical imports, training of personnel and a reorganization of pharmaceutical distribution channels ;
- (b) Review of policy on medical insurance, and the development of a system designed to provide insurance only to the poorest households. This should include allowing local clinics to retain the funds recovered from medical insurance cards ;
- (c) A program to finance increased domestic production or imports of textbooks and provide basic teacher training to newly-recruited unqualified teachers.

In "stable " regions

- (a) Promotion of fertilizer use, improved seeds and agricultural extension services, together with small collective grants or credits, to increase agricultural productivity and food production. This will both improve home consumption and nutrition, and lower food prices for rural net consumers and the urban poor ;
- (b) Public works programs for local infrastructure to : (i) rectify regional disparities ; (ii) inject cash incomes into rural areas, thus rebuilding household assets as a cushion against insecurity and improving household's ability to access health and educational services ;

²⁷ In particular, there is scope to rapidly increase revenue through the elimination of import duty exemptions, which amounted to nearly 50% of potential import duty revenue in 1993.

- (c) Strengthening incomes and market structures via the provision of credit for non-agricultural activities, including cooperative marketing and transport ;
- (d) Packages to resettle displaced populations.

In "post-conflict" regions where there was low income poverty incidence before the crisis

- (a) Local infrastructure reconstruction ;
- (b) Initiatives to "Jumpstart" agricultural production by providing access to agricultural inputs, through for example fertilizer-for-work programs and seasonal credit ;
- (c) Packages to resettle displaced populations ;

In "post conflict " regions²⁸ where there was high income poverty incidence before the crisis

- (a) As above, but with additional public works programs to transfer income to the population in order to enable them to rebuild some capital and restart productive activities.

In regions where conflict is persistent and widespread

- (a) Humanitarian aid and conflict resolution initiatives.
- (b) Basic infrastructure rehabilitation/maintenance and distribution of inputs.

In urban areas

- (a) Credit facilities to the informal sector, providing start up funds to recapitalize small enterprises ;
- (b) Public works for local infrastructure rehabilitation.

85. Delivery mechanisms. The optimal implementation mechanism for the programs outlined above needs to both ensure quick disbursement and delivery and facilitate community ownership and control of delivery. The best mechanism to achieve these (sometimes contradictory) objectives is likely to be through a social fund with strong regional presence and a participatory approach to identifying projects. In addition to financing local infrastructure construction, such a fund should include the following components : (i) small grants and/or credits to cooperative groups and small informal sector enterprises ; (ii) public agricultural works, for example swamp land maintenance. Implementation in partnership with local NGOs and community groups should be encouraged. Under the current circumstances of insecurity, it is also desirable that the implementation agency should start and maintain a longer-term relationship with communities, rather than the quick "in-and-out" infrastructure creation which is characteristic of some social funds.

²⁸ Regions which have been hard hit by violence and population displacement, but where relative security now prevails

86. **Project pipeline.** There is no shortage of local public works projects to input into this type of social protection program. Data on reconstruction needs for schools, clinics and local water supplies alone indicate that in the "stable" and "post-conflict" regions there are enormous immediate needs for reconstruction. The table overleaf shows reconstruction needs in health and education infrastructure by province. To this can be added the need for new social infrastructure in certain provinces to rectify pre-crisis inequalities.

C. High case scenario: poverty reduction under improved prospects for growth and political stability

87. What are the conditions under which poverty reduction initiatives could start to target equitable growth rather than purely social protection? This transition can only take place under a more stable political and economic environment. Necessary conditions to create this environment include: (i) an improvement in security prospects, signaled not

TABLE 13 : REGIONAL RECONSTRUCTION NEEDS: HEALTH AND EDUCATION

	Health	Education (primary)	
	Health centers	Complete reconstruction	Partial reconstruction
Bubanza	5	5	47
Bujumbura-Mairie	3	5	18
Bujumbura-Rural	7	0	24
Bururi	4	2	59
Cankuzo	0	3	0
Cibitoke	14	17	34
Gitega	7	0	11
Karuzi	0	12	23
Kayanza	6	0	40
Kirundo	4	15	29
Makamba	2	11	34
Muramvya	5	0	24
Muyinga	1	0	17
gozi	1	11	11
Rutana	1	18	0
Ruyigi	0	6	5
Burundi	60	108	76%]

Source: National Reconstruction Unit, November 1997

only by a significant diminution of acts of violence on the ground, but also by the establishment of a convincing process to develop a national political consensus, reform representation to political institutions, and increase participation and representation in development policy and programs affecting the poor ; (ii) the resumption of normal external trade, following the suspension of the embargo, and the normalization of the relationship with the donor community.

88. A more stable political and security situation should then permit the resumption of the program of structural economic reforms, which was interrupted by the crisis in 1993. The unfinished agenda of these reforms includes several reforms which are likely to have a direct impact on the incomes of poorer households, namely : (i) decreased reliance on export taxation, which should improve coffee producer prices ; (ii) accelerated liberalization in the pricing and marketing of cash crops, which should also improve producer prices ; (iii) simplification and reduction of tariffs, and more careful application of the "strategic industries" category to ensure that only justifiable infant industries are protected, which should encourage growth in labor intensive industries. Faster progress on these reforms forms part and parcel of a "higher case" poverty reduction strategy in the medium term. In addition, a number of reforms which aim to improve fiscal sustainability, the efficiency of the civil service and the poverty incidence of public expenditure remain outstanding, namely: (i) improved transparency of budget allocation and execution ; (ii) further increases in budgetary allocations to the social sectors ; (iii) rapid progress on privatization, and use of funds generated for public investment, and ; (iv) civil service reform, including a review of incentive and benefit structures.

These reforms are critical for the success of poverty reduction strategies in the medium term, which will require a more effective civil service and higher current expenditure on the social sectors to staff, equip and maintain investment in infrastructure²⁹.

89. If these reforms were underway, what type of poverty reduction program would be feasible? The high case scenario for a more comprehensive poverty reduction program could include :

(a) *expanded infrastructure rehabilitation and public works program* : In addition to the activities outlined under III.B., a more stable environment would enable rehabilitation and public works activities to expand both geographically - into previous "no-go" regions - and sectorally, with more focus on local economic infrastructure such as communal roads, and new construction to rectify inequalities in access to social infrastructure ;

(b) *addressing structural constraints in agriculture* : Peace and security would provide the physical conditions necessary for the recovery of food production and the revival of rural markets, whilst the lifting of the embargo and liberalization of pricing and marketing of cash crops provide the necessary conditions for investment in higher value-added agriculture. The priority will then be to address structural constraints in agriculture. Appropriate investments include: (i) investment in marshland drainage, not only to prepare this fertile land for investment, but also to address the public health risk posed by undrained

²⁹ Unfinished agenda of reforms taken from « Burundi ; a country in crisis, recent economic trends » Hector Sierra/François Nankobogo, World Bank, april 1998

swamplands; (ii) fertilizer promotion, possibly through an integrated program of fertilizer credit, improved seeds (to improve yield response to fertilizer), and training on fertilizer application; (iii) strengthening extension services to transfer skills in the cultivation of higher value-added crops; (iv) credit for longer term investment, both in agricultural production and in the distribution and marketing of agricultural inputs and produce. These should be accompanied by a careful review of land reform options, performed in consultation with the population, to reduce the potential for land conflicts improve tradability of land rights, and increase protection for female headed households ;

- (c) *industry and service*: Line of credit programs to enable the private sector to bring back existing plant into full production are likely to have a rapid effect on unemployment in urban areas. Given the existence of high open unemployment and limited loanable funds for investment, priority may be given to credit for the rehabilitation of labor intensive industries. In addition, programs to strengthen small and medium enterprises, and provide "catch-up" vocational training to youth whose education was interrupted by the crisis will be a priority in the medium term.
- (d) *health* : In health, the key priority once conditions have stabilized is to address population growth. With annual population growth estimated at 3.1 percent, it will take many years to bring poverty incidence back to its pre-crisis levels, even assuming relatively high GDP growth and constant income distribution. Containing the AIDS epidemic will also be a priority as conditions stabilize, with HIV incidence estimated at a dangerously high 21 percent in urban areas, and 5.9 percent in rural areas in 1997. Whilst short term interventions, given the level of household incomes, focus on ensuring free or very low cost health services, developing a more sustainable framework for health financing will also be a key priority in the medium term. Elements of a medium term program in health care therefore include : (i) more vigorous efforts to publicize contraceptive methods and the benefits of spacing children ; (ii) stepping up AIDs prevention programs, and better support to victims and carers ; (iii) determining an appropriate level of cost recovery in health to manage demand, together with targeted programs to provide health insurance for the poorest families.
- (e) *education* : In education, the key medium term issues once primary school enrolment rates have recovered will be to improve the quality of education and to increase investment in secondary schooling. Although this paper has argued strongly that high subsidies to secondary schools are inappropriate in the current context of crisis in primary schooling and limited domestic resources, we also noted that very low secondary schooling is a barrier to the development of a skilled workforce. It is therefore logical that investment in secondary education should resume its pre-crisis rising trend once conditions stabilize. It is important that this involve the full reform of the boarding school (internat) system, which raises unit costs of secondary education to a prohibitive level for Government, and poses an almost insuperable barrier for poorer households. It is therefore recommended that, once conditions stabilize, further support be given to the secondary and vocational system through the emergent network of communal colleges, which are far more accessible to poorer families.

Annex I

Note on poverty incidence and depth

Annexe 1 : Evolution des taux de pauvreté en milieux urbain et rural entre 1990-1997

1. HYPOTHÈSES ET SCÉNARIOS UTILISÉS POUR CALCULER LES TAUX DE PAUVRETÉ

- Les indicateurs de pauvreté sont produits séparément et indépendamment pour les deux localités : le monde rural et la ville de Bujumbura.
- La période d'analyse est de 1990 à 1997. L'année de base pour le monde rural est 1990; car, c'est à cette année que tous les résultats de l'EBC (l'Enquête Budget-Consommation réalisée de 1986 à 1990) ont été ramenés. Tandis que l'année de base pour la ville de Bujumbura est 1991 qui correspond à la période couverte par l'Enquête sur les Dépenses de Consommation des Ménages de Bujumbura (EDCM).
- Le logiciel de travail pour le calcul des indicateurs de pauvreté est POVCAL. Pour le mettre en oeuvre, les données de base suivantes ont été préalablement produites :
- Un fichier ASCII contenant les fréquences de la répartition des individus selon les tranches de dépenses ainsi que la dépense moyenne par personne pour chaque tranche de dépense.
- La ligne de pauvreté.
- La dépense par capita pour chaque année
- Le fichier ASCII du monde rural est la répartition des individus ainsi que leur dépense moyenne par vingtile ; ce fichier a été produit à partir des données pondérées de l'EBC. Quant à celui de la ville de Bujumbura, il s'agit de la répartition des individus ainsi que leur dépense moyenne par quintile ; il a été produit à partir des données pondérées (par la taille des ménages) de l'EDCM.
- La ligne de pauvreté est la valeur des 2/3 de la dépense moyenne par personne. Les dépenses moyennes par personne pour les années de base sont issues des fichiers de l'EBC et de l'EDCM : pour le monde rural elle s'élève 26,968 FBU et pour la ville de Bujumbura à 69,276 FBU. Ainsi, pour le milieu rural la ligne de pauvreté est de 17,979 FBU quand pour la ville de Bujumbura elle est de 46,184 FBU. La ligne de pauvreté est considérée comme constante pour toute la période d'analyse.

- Pour estimer la dépense per capita pour chaque année, les éléments suivants sont préalables : les effectifs de la population ainsi que sa dépense globale à chaque année de la période d'analyse.
- Pour les effectifs de la population, nous avons retenu les estimations de Unité de la Planification de la Population (UPP) : cfr l'hypothèse 1 pour la période de 1993-1997 et les données du Consultant Salvator Sahinguvu: cfr l'étude de la Banque Mondiale "Etude d'Evaluation des Secteurs Sociaux" (page 6) réalisée dans le cadre de la préparation de la note de pauvreté au Burundi en 1998. Les effectifs des sinistrés ont été aussi considérés ; leur source a été varéee : l'UPP dans son "Etude de la situation de la femme sinistrée au Burundi" réalisée en Avril 1995 (donnés de 1994), le Ministère à la Réinsertion et à la Réinstallation des Sinistrés et des Rapatriés pour les données de la ville de Bujumbura en 1995, la banque de donnée du DHD (Développement Humain Durable) pour les autres données de 1995 et de 1996 (le nombre de sinistrés de Bujumbura ville en 1996 pourrait être considéré comme la moyenne de 1995 et 1997), DHA Humanitarian Coordination Unit (HCU) et UNICEF pour les données de 1997 (pour 1997, on a fait la moyenne des données disponibles durant les différents mois de l'année, donc de ces deux sources).
- Pour estimer la dépense globale de la population, on a développé des scénarios qui sont présentés sous le point 2.

La dépense par personne à chaque année est obtenue en rapportant la dépense globale, à cette date, par l'effectif correspondant de la population (en y intégrant ou non l'effectif des sinistrés). Tout en sachant que pour les années de base (1990 pour l'EBC et 1991 pour l'EDCM, les dépenses sont déjà connues. Pour ces mêmes années, les dépenses globales sont obtenues en multipliant la dépense moyenne par l'effectif de la population. Pour les autres années, la dépense globale en francs constants est obtenue en affectant à la dépense globale de l'année précédente le taux de croissance retenu :

Si DEP_t = Dépense globale à la date t ;
 DEP_{t+1} = Dépense de l'année $t + 1$;
 $T_x = 0.01$ * taux de croissance retenu (donc non en pourcentage)
 $DEP_{t+i} = DEP_t * (1 + T_x)$.

2. SCENARIOS DE L'EVOLUTION DES DEPENSES DES MENAGE

Pour l'ensemble du milieu rural

- *Premier scénario*: la dépense globale croit au même rythme que le PIB en francs constants 1990 (évolution du PIB : cfr FMI, voir Tableau 1) ;

	Population rurale	Taux de croissance PIB	Dépenses globales	Dépenses par personne (FBu 1990)
1990	4,959,749		133,754,511,032	26,968
1991	5,096,722	5.0	140,442,236,584	27,555
1992	5,232,266	1.6	142,689,312,369	27,271
1993	5,366,288	-6.5	133,414,507,065	24,862
1994	5,454,587	-3.1	129,278,657,346	23,701
1995	5,544,265	-7.0	120,229,151,33	21,5
1996	5,633,290	-8.4	110,129,902,620	19,550
1997	5,720,936	0.7	110,900,811,938	19,385

- *Deuxième scénario*: la dépense globale croît au même rythme que la valeur ajoutée réelle (en francs constants 1990) du secteur agricole (évolution du secteur agricole : cfr FNE et Banque mondiale, voir Tableau 1) ;

	Population rurale	Taux de croissance PIB agricole	Dépenses globales	Dépenses par personne (FBu 1990)
1990	4,959,749		133,754,511,032	26,968
1991	5,096,722	2.1	136,563,355,764	26,794
1992	5,232,266	3.7	141,616,199,927	27,066
1993	5,366,288	-4.4	135,385,087,130	25,229
1994	5,454,587	-9.4	122,658,888,940	22,487
1995	5,544,265	-3.1	118,856,463,383	21,438
1996	5,633,290	3.6	114,577,630,701	20,339
1997	5,720,936	1.0	115,723,407,008	20,228

- *Troisième scénario* : la dépense globale croît au même rythme que la valeur ajoutée réelle du secteur agricole et en y intégrant l'aide alimentaire (en francs

constants 1990) distribuée aux sinistrés (aide alimentaire : cfr données du PAM, voir Tableau 4) ;

	Personnes	Taux de croissance PIB agricole	Dépenses globales	Aide alimentaire	Dépenses par personne (FBu 1990)
1990	4,959,749		133,754,511.032	0	26,968
1991	5,096,722	2.1	136,563,355,764	0	26,794
1992	5,232,266	3.7	141,616,199,927	0	27,066
1993	5,366,288	-4.4	135,385,087,130	0	25,229
1994	5,454,587	-9.4	122,658,888,940	4,575,024,000	23,326
1995	5,544,265	-3.1	118,856,463,383	3,509,857,000	22,071
1996	5,633,290	-3.6	114,577,630,701	2,268,290 000	20,742
1997	5,720,936	1.0	115,723,400, 8	2,172,101,000 00	20,608

- *Quatrième scénario* : la dépense globale croît au même rythme que la valeur ajoutée réelle du secteur agricole et en excluant les sinistrés du monde rural

	Population rurale	% sinistrés	Population non-sinistrée	Taux de croissance PIB agricole	Dépenses globales non-sinistrés	Dépenses par personne (FBu 1990)
1990	4,959,749	0.00	4,959,749		133,754,511,032	26,968
1991	5,096,722	0.00	5,096,722	2.1	136,563,355,764	26,794
1992	5,232,266	0.00	5,232,266	3.7	141,616,19,927	27,066
1993	5,366,288	0.00	5,366,288	-4.4	135,385,087,130	25,229
1994	5,454,587	2.30	5,329,131	-9.4	122,658,888,940	23,017
1995	5,544,265	8.27	5,085,754	-3.1	118,856,463,383	23,370
1996	5,633,290	9.94	5,073,341	-3.6	114,577,630,701	22,584
1997	5,720,93	11.32	5,073,326	1.0	115,723,40 008	22,810

Pour le niveau détaillé des provinces (partie rurale)

Cinquième scénario: il aurait été parfait de considérer que la dépense globale de chaque province croît au même rythme que sa production agricole totale. Mais, par province et pour les années 1990, 1996 et 1997 seulement, il n'est disponible que les estimations de la production vivrière par province (qui par ailleurs constitue environ 80% de l'ensemble de la production agricole) ; la source est le programme

informatique WHITE de la FAO, pour les données de 1990 et 1996 ainsi que le département de la planification agricole pour les données de 1997 (voir Tableau 6). Afin de rester prudent, on s'est référé au niveau moyen de la production vivrière des années 1996 et 1997 pour dégager le niveau de perte/croissance vivrière par rapport à 1990. On s'est alors fixé des "intervalles de confiance" (bornes supérieure et inférieure) des taux de pertes agricoles totales comme suit :

- Pertes agricoles entre 20 et 30% : provinces de Bubanza et Cibitoke.
- Pertes agricoles entre 8 et 12% : provinces de Karuzi, Bujumbura rural, Kirundo, Kayanza et Rutana.
- Pertes agricoles entre 4 et 9% : provinces de Muramvya, Gitega et Bururi.
- Pertes agricoles entre 0 et 5% : provinces de Ngozi, Ruyigi, Muyinga et Makamba
- Croissance agricole entre 5 et 10% : province de Cankuzo

Les indicateurs ont été par la suite calculés en excluant les sinistrés pour 1997.

Province	Population rurale 90	Population rurale 97	% sinistrés 97	Population non-sinistrée 97	Dép. par personne 90	Dép. par personne 97	Dép. min par personne 97
Bubanza	220,008	256,488	28.021	184,617	30,621	29,193	25,544
Bujumbura rural	372,597	434,377	5.88	408,814	33,149	27,795	26,587
Bururi	369,674	430,970	9.83	388,608	25,473	23,263	22,051
Cankuzo	141,154	164,559	4.33	157,432	25,837	25,482	24,324
Cibitoke	271,563	316,591	36.32	201,605	33,568	36,173	31,651
Gitega	544,466	634,744	4.49	606,245	27,237	23,438	22,260
Karuzi	284,502	331,675	35.34	214,459	17,392	21,226	20,465
Kayanza	436,235	508,567	17.73	418,408	23,613	22,650	21,837
Kirundo	395,922	461,570	4.35	441,498	32,171	26,542	25,288
Makamba	218,601	254,847	7.70	235,235	25,926	24,093	22,888
Muramvya	439,363	512,214	7.72	472,658	27,409	24,459	23,185
Muyinga	367,849	428,842	9.11	389,760	28,431	26,833	25,491
Ngozi	467	545,290	3.73	524,933	24,165	21,532	20,455
Rutana	193,890	226,039	1.44	222,779	22,2981	17,854	17,078
Ruyigi	236,190	275,353	2.861	267,491	24,183	21,353	20,286

Pour la ville de Bujumbura

Premier scénario: la dépense globale croît au même rythme que le PIB en francs constants 1990 (évolution du PIB: cfr FMI, voir Tableau 1) ;

	Population urbaine	Taux de croissance PIB	Dépenses globales	Dépenses par personne (FBu 1990)
1990	235,440		16,067,809,463	68,246
1991	243,536	5.0	16,871,199,936	69,276
1992	251,909	1.6	17,141,139,135	68,045
1993	260,571	-6.5	16,026,965,091	61,507
1994	269,531	-3.1	15,530,129,174	57,619
1995	278,799	-7.0	14,443,020,131	51,804
1996	288,385	-8.4	13,229,806,440	45,876
1997	298,301	0.7	13,322,415,085	44,661

Deuxième scénario: la dépense globale croît au même rythme que la valeur ajoutée réelle (en francs constants 1990) des secteurs secondaire et tertiaire (cfr FMI, voir Tableau 1) ;

	Population urbaine	Taux de croissance PIB sect. Tert.	Dépenses globales	Dépenses par personne (FBu 1990)
1990	235,440		16,206,724,242	68,836
1991	243,536	4.1	16,871,199,936	69,276
1992	251,909	2.0	17,208,623,935	68,313
1993	260,571	-7.3	15,952,394,387	61,221
1994	269,531	-4.1	15,298,346,218	56,759
1995	278,799	-0.6	15,206,556,140	54,543
1996	288,385	-12.2	13,351,356,291	46,297
1997	298,301	0.5	13,418,113,073	44,982

Troisième scénario : la dépense globale croît au même rythme que le PIB en francs constants 1990 et en excluant les sinistrés;

	Population urbaine	Taux de croissance PIB sect. tert.	Dépenses globales	Dépenses par personne (FBu 1990)
1990	235,440		16,206,724,242	68,246
1991	243,536	4.1	16,871,199,936	69,276
1992	251,909	2.0	17,208,623,935	68,045
1993	260,571	-7.3	15,952,394,387	61,507
1994	269,531	-4.1	15,298,346,218	58,748
1995	278,799	-0.6	15,206,556,140	55,626
1996	288,385	-12.2	13,351,356,291	48,591
1997	298,301	0.5	13,418,113,073	46,710

Quatrième scénario : la dépense globale croît au même rythme que la valeur ajoutée réelle (en francs constants 1990) des secteurs secondaire et tertiaire et en excluant les sinistrés.

	Population urbaine	% sinistrés	Population non-sinistrée	Taux de croissance PIB sec. + tert.	Dépenses globales des non-sinistrés	Dépenses par personne (FBu 1990)
1990	235,440	0.00	235,440		16,206,724,242	68,836
1991	243,536	0.00	243,536	5.0	16,871,199,936	69,276
1992	251,909	0.00	251,909	1.6	17,208,623,935	68,313
1993	260,571	0.00	260,571	-6.5	15,952,394,387	61,221
1994	269,531	1.92	264,350	-3.1	15,298,346,218	57,872
1995	278,799	6.87	259,644	-7.0	15,206,556,140	58,567
1996	288,385	5.59	272,266	-8.4	13,351,356,291	49,038
1997	298,301	4.39	285,218	0.7	13,351,356,291	47,045

3. PRESENTATION DES TAUX DE PAUVRETE OBTENUS SELON LES DIFFERENTS SCENARIOS

Les indicateurs de pauvreté pour le milieu rural (en FBu constants de 1990)

Premier scénario : Selon l'évolution du PIB réel.

	PO	PI	P2
1990	35.0832	9.2624	3.2959
1991	33.6536	8.7159	3.0454
1992	34.3382	8.9765	3.1643
1993	40.6596	11.4977	4.3603
1994	44.0459	12.9390	5.50774
1995	50.4477	15.8607	6.65987
1996	57.8742	19.6394	8.6928
1997	58.4708	19.9646	8.8795

Deuxième scénario : Selon l'évolution de la V.A. réelle du secteur agricole.

	PO	PI	P2
1990	35.0832	9.2624	3.2959
1991	35.5161	9.4304	3.3738
1992	34.8400	9.1690	3.2528
1993	39.6357	11.0748	4.1543
1994	47.8237	14.6298	5.9471
1995	51.2755	16.2594	6.8131
1996	55.0621	18.15251	7.8521
1997	55.4534	18.3550	7.9654

Troisième scénario : Selon l'évolution de la V.A. réelle du secteur agricole et en y incluant l'aide alimentaire.

	PO	PI	P2
1990	35.0832	9.2624	3.2959
1991	35.5161	9.4304	3.3738
1992	34.8400	9.1690	3.2528
1993	39.6357	11.0748	4.1543
1994	47.1872	13.4402	5.3321
1995	49.1724	15.2563	6.2769
1996	53.6547	17.4351	7.4542
1997	54.1204	17.6706	7.5843

Quatrième scénario : Selon l'évolution de la V.A. réelle du secteur agricole et en excluant les sinistrés

Les indicateurs de pauvreté pour le milieu rural par province

	PO	PO intégrant Sinistrés	P1	P2
1990	35.0832	35.0823	9.2624	3.2959
1991	35.5161	35.5161	9.4304	3.3738
1992	34.8400	34.8400	9.1690	3.2528
1993	39.6357	39.6357	11.0748	4.154 3
1994	46.1481	48.4481	13.8685	5.5518
1995	45.0490	53.3190	13.3791	5.3009
1996	47.5131	57.4531	14.4873	5.8721
1997	46.7953	58.1153	14.1603	5.7027

Les indicateurs de pauvreté pour le milieu rural par province

1990			
	PO	P 1	P2
Bubanza	26.5550	5.8504	1.7688
Bujumbura rural	25.8812	6.3277	2.0993
Bururi	38.1079	9.9572	3.4544
Cankuzo	25.7814	6.3277	2.2432
Cibitoke	23.4636	5.5532	1.8057
Gitega	36.2409	10.6103	4.1105
Karusi	66.6868	23.0993	10.4278
Kayanza	46.0663	12.7931	4.6592
Kirundo	24.9353	7.0300	2.7042
Makamba	41.5777	11.4126	4.1553
Muramvya	29.1930	7.1976	2.4908

Muyinga	28.0889	7.1207	2.4692
Ngozi	40.7938	10.4460	3.5229
Rutana	5.8198	18.8127	8.8283
Ruyigi	47.5000	14.1390	5.3792

1997, niveau maximal de dépense

	PO	PO sinistrés Intégrés	P1	P2
Bubanza	29.7730	57.7942	6.8909	2.1880
Bujumbura rural	36.5244	42.3953	10.3480	3.9579
Bururi	44.5004	54.3297	12.6798	4.7620
Cankuzo	26.7107	31.0417	6.6014	2.3584
Cibitoke	19.6096	55.9295	4.3136	1.3015
Gitega	45.1841	49.6739	14.7690	6.3236
Karuzi	51.8968	86.0894	15.2580	6.0736
Kayanza	49.1346	66.8627	14.2131	5.3661
Kirundo	34.0653	40.2697	11.0478	4.7368
Makamba	46.8206	54.5164	13.7325	5.3049
Muramvya	37.6404	45.3243	10.0151	3.7364
Muyinga	31.0768	40.5631	8.3989	3.0474
Ngozi	49.2944	53.4799	14.2243	5.3443
Rutana	68.9018	70.3418	27.3800	14.0191
Ruyigi	55.3641	58.2192	7.8037	18.5162

1997, niveau minimal de dépense

	PO	PO sinistrés Intégrés	P1	P2
Bubanza	39.6567	67.6779	10.3702	3.6993
Bujumbura rural	39.4508	45.3217	11.5495	4.5526
Bururi	48.3206	58.1499	14.4380	5.6554
Cankuzo	30.0273	34.3583	7.5900	2.7791
Citiboke	26.7850	63.1049	6.6705	2.2835
Gitega	48.4984	52.9882	16.5864	7.2659
Karuzi	53.7055	88.8991	16.6718	6.7674
Kayanza	51.8117	69.5398	15.5150	6.0360
Kirundo	37.6864	42.8908	12.1491	5.3207
Makamba	50.5009	58.1967	15.4803	6.2127
Muramvya	41.9320	49.6546	11.5649	4.4522
Muyinga	34.9726	44.8953	9.6447	3.6302
Ngozi	53.0523	57.2378	16.0734	6.3013
Rutana	71.6075	73.0495	29.2444	15.2355
Ruyigi	58.4804	61.3355	20.4364	8.9422

Les indicateurs de pauvreté pour la ville de Bujumbura

Premier scénario : Selon l'évolution du PIB réel.

	PO	P1	P2
1990	30.0097	8.7303	3.1979
1991	31.9900	8.3716	3.0351
1992	33.2125	8.80211	3.2307
1993	40.5315	11.4996	4.4978
1994	45.5753	13.4949	5.4778
1995	54.0428	17.1663	7.3705
1996	63.5233	21.9449	10.0102
1997	65.5170	23.0723	10.6636

Deuxième scénario : Selon l'évolution de la V.A. réelle du secteur secondaire et tertiaire.

	PO	P1	P2
1990	32.4216	8.5230	3.1036
1991	31.9900	8.3716	3.0351
1992	32.9423	8.7065	3.1871
1993	40.8848	11.6354	4.5634
1994	46.7605	13.9826	5.7225
1995	49.9259	15.3244	6.4065
1996	62.8340	21.5665	9.7936
1997	64.9899	22.7696	10.4868

Troisième scénario : Selon l'évolution du PIB réel et en excluant les sinistrés.

	PO	PO intégrant sinistrés	P1	P2
1990	30.0097	30.0097	8.7303	3.1979
1991	31.9900	31.9900	8.3716	3.0351
1992	33.2125	33.2125	8.8021	3.2307
1993	40.5315	40.5315	11.4996	4.4978
1994	44.0571	45.9771	12.8812	5.5518
1995	48.3593	55.2293	14.6529	5.3009
1996	59.1094	46994	19.61	5.8727
1997	62.1592	66.5492	21.2014	5.7027

Quatrième scénario : Selon l'évolution de la V.A. réelle du secteur secondaire et tertiaire et en excluant les sinistrés.

	PO	PO intégrant sinistrés	P1	P1
1990	32.4216	32.4216	8.5230	3.1036
1991	31.9900	31.9900	8.3716	3.0351
1992	32.9423	32.9423	8.7065	3.1871
1993	40.8848	40.8848	11.6354	4.5634
1994	54.2313	47.1513	13.3548	5.4078
1995	44.2976	51.1676	12.9776	5.2204
1996	58.3921	63.9821	19.2527	8.4979
1997	61.6129	66.0029	20.9096	9.4208

CAUSES OF THE RISE IN RURAL POVERTY, PPA, RANKED BY FREQUENCY

	Rutovu	Bukemba	Makamba	Busoni	Ruhororo	Mugamba	Kigamba	Makebuko
Soil degradation	√	√	√	√	√	√		√
Lack of livestock for manure	√	√	√	√	√	√		√
Plant diseases	√	√	√		√	√	√	√
Closure of projects	√		√	√		√	√	√
Land fragmentation	√	√			√	√		√
Lack of improved seeds	√				√	√	√	√
Looting and destruction		√	√	√	√			√
Climatic changes	√			√	√	√		√
Rising prices	√	√			√	√		√
Drop in mobility			√		√	√		√
Drop in trade			√	√	√	√		√
Displacement				√	√	√		√
High price of animal medicine	√			√		√	√	
Crop pests		√		√	√			√

Source : PPA

Annex II

Tables

TABLE 1 : ANNUAL GROWTH RATES

	Actual					Estimates	
	1991	1992	1993	1994	1995	1996	1997
GDP at market prices	5.0%	0.7%	-5.9%	-3.7%	-7.3%	0.7%	4.4%
Agriculture	2.1%	3.0%	-4.1%	-10.3%	-6.0%	0.5%	3.0%
Industry, of which	9.3%	3.0%	-16.4%	-6.3%	17.1%	-7.9%	5.0%
Manufacturing	4.2%	6.4%	-18.2%	-4.6%	-21.8%	-0.7%	5.0%
Services	2.3%	1.6%	-2.3%	-3.2%	4.4%	-0.6%	5.3%
Exports (GNFS)	21.0%	18.1%	-10.0%	-15.3%	34.1%	31.7%	35.7%
Imports (GNFS)	4.8%	-3.0%	8.8%	6.3%	-0.3%	2.4%	19.3%
GDP per capita	2.0%	-2.2%	-8.6%	-6.5%	-1.1%	-2.2%	1.4%

Source: Economic Note, World Bank 1998

TABLE 2: TRENDS IN PRODUCTION BY MAJOR CROP, 1980 – 1989

Crop	1989 production ('000 tons)	Annual growth rate 1980-89
Cassava	642	5.5
Sweet potato	662	4.4
Sorghum	69	4.4
Bananas	1,638	4.4
Maize	135	-0.2
Potato	32	-0.6
Colocase	82	-1.1
Livestock (head)		-1.3
Beans	221	2.6

Source: World Bank, Private Sector Development in Agriculture, 1993

TABLE 3: REGIONAL AGRICULTURAL PRODUCTION TRENDS, BY MAJOR CROP (TONS)

Province	1990	1996	1997	% change
Bubanza	274,192	201,493	193,423	-28%
Bujumbura-R	262,202	237,597	232,758	-10%
Bururi	202,686	199,988	183,680	-5%

Cankuzo	87,567	87,678	108,136	12%
Cibitoke	275,337	201,559	195,374	-28%
Gitega	440,403	409,650	422,857	-5%
Karuzi	186,022	179,801	153,019	-11%
Kayanza	402,600	366,798	362,817	-9%
Kirundo	372,192	346,325	327,409	-9%
Makamba	96,581	90,632	100,162	-1%
Muramvya.	287,184	271,063	263,517	-7%
Muyinga	334,239	318,508	334,415	-2%
Ngozi	434,990	413,592	425,152	-4%
Rutana	141,006	123,434	133,162	-9%
Ruyigi	160,662	157,159	156,130	-3%
Burundi	3,957,863	3,605,277	3,592,11	-9%

Source: FAO and Ministry of Agriculture

TABLE 4 : FERTILISER IMPORTS AND PRICES, 1992-97

	Imports (tons)	Price/kg (DAP)
1992	16,660	110
1993	12,960	130
1994	9,150	130
1995	5,123	130
1996	4,444	190
1996 (Jan - Oct)	4,406	
1997 (Jan - Oct)	4,649	200

Source : Banque de la République du Burundi

TABLE 5 : POPULATION DISPLACEMENT BY PROVINCE, 1997

Province	1997	July 1997		October 1997		December 1997	
	Population	Displaced	Percentage	Displaced	Percentage	Displaced	Percentage
Bubanza	259,921	63,055	24.3%	80,686	31.0%	123,701	47.6%
Bujumbura-R	435,420	22,020	5.1%	29,106	6.7%	41,954	9.2%
Bujumbura-M	298,301	13,319	4.5%	12,848	4.3%		
Bururi	449,409	42,464	9.4%	42,259	9.4%	50,259	11.2%
Cankuzo	166,474	11,000	6.6%	3,254	2.0%	3,254	2.0%
Cibitoke	326,244	180,000	55.2%	49,971	15.3%	49,971	15.3%
Gitega	658,886	30,459	4.6%	26,539	4.0%	26,539	4.0%
Karuzi	335,643	112,699	33.6%	121,733	36.3%	71,307	21.2%
Kayanza	516,590	109,954	21.3%	70,365	13.6%	70,365	13.6%
Kirundo	467,610	20,072	4.3%	20,072	4.3%	27,962	6.0%
Makamba	260,907	1,440	0.6%	37,785	14.5%	37,785	14.5%

Muramvya	514,884	55,810	10.85%	23,302	4.5%	28,617	5.6%
Mu nga	435,293	55,310	12.7%	22,855	5.3%	25,380	5.8%
Ngozi	562,208	21,530	3.8%	19,184	3.4%	18,979	3.4%
Rutana	228,305	2,844	1.2%	3,675	1.6%	3,675	1.6%
Ruyigi	278,124	9,388	3.4%	6,335	2.3%	6,335	2.3%
Burundi	6,194,219	751,363	12.1%	569,969	9.2%	586,083	9.5%

Source : Humanitarian coordination unit, population planning unit

TABLE 6 : NON-AGRICULTURAL ACTIVITIES IN THE PPA COMMUNITIES, % OF POPULATION ENGAGED

	Before the crisis			After the crisis			Change
	Crafts	Commerce	Total	Crafts	Commerce	Total	
Busoni	15	35	50	7	0	7	-43
Makebuko	19	12	31	12	6	18	-13
Makamba	8	20	28	10	10	20	-8
Bukemba	7	10	17	4		12	-5
Ruhororo	20	8	28	18		23	-5
Mugamba	22	8	30	10		32	2
Rutovu	13	5	18	20	20	140	22
Kigamba	4	10	14	15		37	23

Source : PPA

TABLE 7: CONSUMER PRICE MOVEMENTS IN BUJUMBURA, 1991-1997

	1991	1992	1993	1994	1995	1996	1997
General index	100	101.8	111.7	128.0	153.0	193.4	274.6
Food index	100	97.9	113.5	133.6	160.4	198.9	286.4
Cassava flour	100	173.4	129.0	152.2	158.9	185.6	188.9
Rice	100	103.6	131.8	150.5	154.7	202.2	286.7
Beans	100	102.6	170.8	174.8	171.9	329.2	372.7
Sweet potato	100	134.3	195.6	191.6	170.7	213.9	260.1
Green banana	100	99.7	179.5	176.1	190.5	212.6	260.2
Beef	100	120.0	130.0	130.0	230.0	242.5	370.1
Ndagala (fish)	100	100.0	98.5	91.3	118.6	219.0	292.7
Palm oil	100	88.7	91.4	97.7	113.3	169.2	236.8
Salt	100	108.9	100.0	93.5	161.2	256.8	186.9
Primus beer	100	100.0	103.4	120.7	146.6	172.4	236.5
Soap	100	100.0	117.0	145.0	150.0	154.4	200.0
Second hand	100	109.1	141.0	119.1	133.2	309.5	334.1

shirt							
Local cloth	100	110.0	100.0	103.3	108.3	145.8	198.3
Charcoal	100	95.3	107.4	110.7	199.6	205.0	216.4
Firewood	100		100.0	107.7	129.8	275.0	276.9
Lamp fuel	100	100.0	105.7	105	117.9	325.2	406.5
Notebook	100	100.0	112.5	112.5	137.5	312.5	312.5

Source : Bulletin mensuel des prix, Institut de Statistiques et des Etudes Economiques du Burundi (ISTEEBU)

TABLE 8 : PUBLIC ENTERPRISE VERSUS PRIVATE SECTOR LAYOFFS

	Status	No. of workers before embargo	Layoffs	Layoffs of unskilled workers
SETEMU	Public	194	0	0
ISTEEBU	Public	117	0	0
ISABU	Public	916	0	0
ONATEL	Public	597	0	0
SODECO	Public	139	0	0
ONATOIR	Public	62	0	0
SOBUGEA	Public	159	0	0
AMI	Private	41	19	0
FINA	Private	82	13	0
AGGLOBU	Private	189	69	67
ARNOLAC	Private	223	57	57
EGB	Private	404	339	332
UTEMA	Private	62	0	0
ROBIALAC	Private	361	313	307
FADI	Private	42	26	21
OLD EAST	Private	78	25	21
FERAL	Private	106	47	42
SAVONOR	Private	113	65	62

Source : Poverty note enterprise survey

TABLE 9 : MORBIDITY RATES

Illness	1990	1991	1992	1993	1994	1995	1996
Malaria	511,340	548,201	773,539	828,429	831,481	1,052,362	998,432
Measles	12,989	10,438	21,054	33,773	8,666	18,505	16,365
Respiratory infection	104,637	146,879	193,322	191,874	203,191	259,141	271,791
Diarrhea	157,170	145,350	170,449	113,845	122,208	125,331	114,909

Source : EPISTAT (Epidémiologie et statistique)

TABLE 10 : VOLUMES OF PHAMACEUTICAL IMPORTS, 1992-97

Year	1992	1993	1994	1995	1996	1997 (Jan.- Oct.)
Imports (tons)	555	466	806	728	404	93

Source: Banque de la République du Burundi

TABLE 11: EXTERNAL DEVELOPMENT AID BY SECTOR 1990 – 1996

	1989	1990	1991	1992	1993	1994	1995
Education	28.4	34.0	33.0	36.6	28.0	23.0	9.3
Health	12.0	14.8	13.8	11.3	17.2	13.0	11.7
Agriculture	41.8	37.2	47.0	43.7	23.4	70.7	17.2
Social development	12.8	26.8	16.2	23.0	28.8	20.6	22.0
of which water and sanitation	8.9	9.7	6.8	8.8	10.8	5.5	5.6
Infrastructures	50.6	46.6	44.3	40.1	42.6	24.7	15.7
Other sectors	56.6	110.0	128.2	159.9	78.0	34.2	37.9
Total	211.1	269.4	282.5	314.6	218.0	186.2	113.8

**Source : Banque de République du Burundi, Ministry of Finance,
donors, UNDP**