



C3P FOOD SECURITY BRIEF NO. 6

FOOD SECURITY IN BURUNDI

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BACKGROUND

One of C3P's activities is to assess and document the status of food security in the regions' households, and the relationship between food security and the C3P mandate crops, East African Highland banana and cassava.

This brief describes three indicators of food security in Burundi. 'Food security I' contains the actual calorie intake per caput per day from own production. 'Food security II' depicts the total cal/cap/day capacity of households from own production (both consumed and sold), whereas 'Food security III' describes the capacity of households to purchase food from off-farm income.

The survey on which this brief is based covers most of the provinces in Burundi, except for a few inaccessible districts and Bujumbura, where agriculture does not play a significant role in food supply (Table 1).

Food security in Burundi

Introduction

Other than in the four countries assessed in the Food Security Briefs 1-5 (ABELE ET AL., various issues), Burundi is definitely food insecure. FAO (2007) reports an average per capita calorie intake in the years from 2002-2004 of around 1,700, which is below the minimum of intake for humans.

Burundi has a series of issues to be considered when talking about the origin of these food security problems. High population density, small farms and a hilly landscape which makes agriculture prone to erosion and hence low soil fertility are supposedly the major contributors to the problems. The political instability of recent years has also decreased food security significantly. Recently, diseases like banana bacterial wilt and cassava mosaic disease, but also abiotic stresses like droughts have further contributed to the instability of food security.

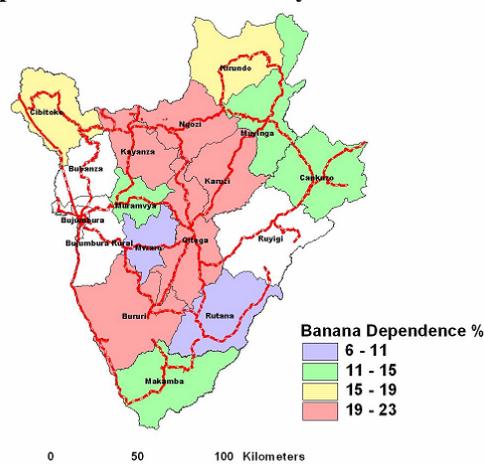
Table 1: Provinces surveyed

| Province |
|----------|
| Cankuzo |
| Muyinga |
| Kirundo |
| Ngozi |
| Kayanza |
| Karuzi |
| Gitega |
| Cibitoke |
| Bururi |
| Makamba |
| Rutana |
| Mwaro |
| Muramvya |

The role of banana and cassava in the region's food security

Bananas and cassava play an important role in Burundi's diets. Together, they make up almost 60 percent of the diets in some provinces. Bananas contribute from as little as 6 percent to as much as 23 percent of the diet (Map 1). There seems to be a banana corridor going through the heart of Burundi.

Map 1: Share of banana in daily calorie intake

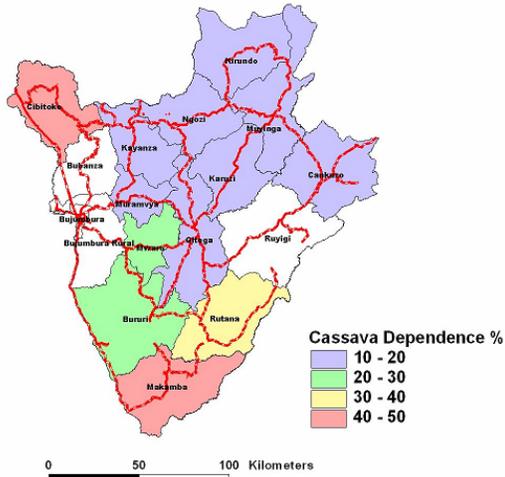


Source: Own data

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Cassava contributes between 12 and 47 percent of the diets. This clearly shows that cassava is the most important food crop in Burundi (Map 2). The highest importance of cassava in the diets is found in the South and the Northwest.

Map 2: Share of cassava in daily calorie intake

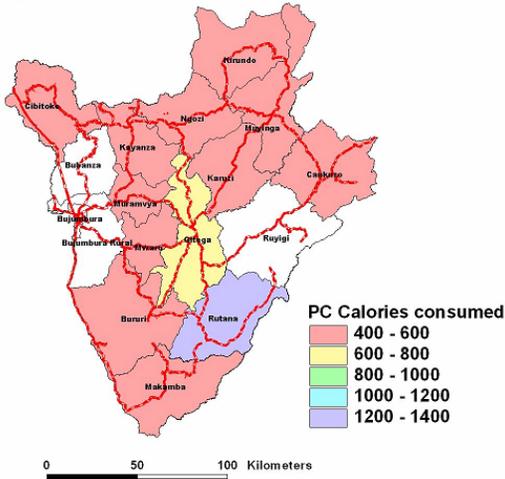


Source: Own data.

Food security I: Daily calorie intake from subsistence production

Daily calorie intake from subsistence production is considerably low, however, higher than in Rwanda. It ranges from 390 kcal per day in Muramvya to about 1,400 kcal per capita per day in Rutana (Map 3). This means that most of the households are covering their food requirements from the market.

Map 3: Calorie intake from own production

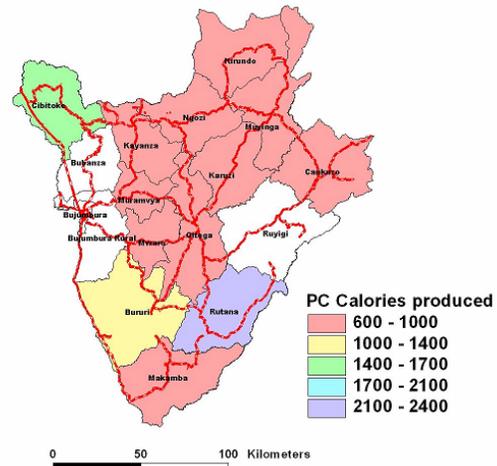


Source: Own data.

Food security II: Daily calorie capacity from total crop production

The daily calorie potential from total crop production ranges from 650 to little more than 2,600 calories per capita per day (Map 4). This again implies that most of the households in Burundi are not in a position to cover their food needs from agriculture.

Map 4: Calorie capacity from own production

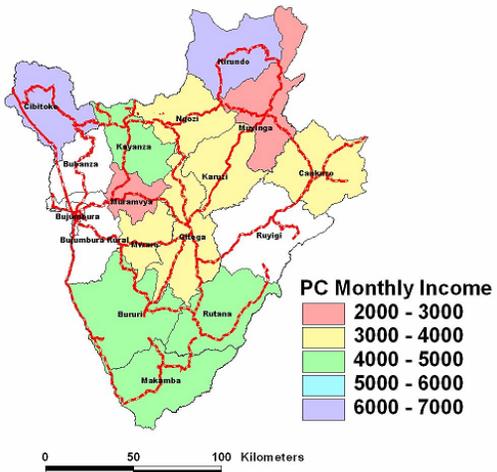


Source: Own data.

Food security III: Off-farm income

Map 5 shows the monthly off-farm income per capita per household. It ranges from 1,880 to 6,500 FrBu. From this value, we can deduct the maize equivalent of the household per capita per day by computing the monthly maize equivalent as the units of maize to be purchased at given prices. From there, we can determine the daily amount of calories that can be obtained from off-farm income.

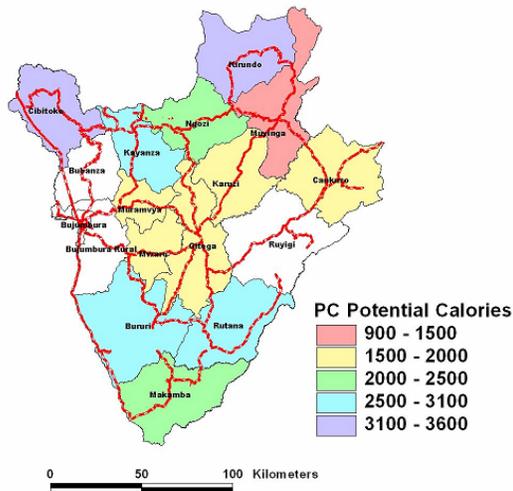
Map 5: Per capita off-farm income per month



Source: Own data.

The above figures translate in potential calorie values per capita per day as depicted in Map 6. In this “best of all worlds” scenario, where we assume that potentially all of the cash income of a household could go into food purchases, and that the “best bet” calorie crop, maize, is available at stable prices, we can see that some provinces’ households still do not have enough food, whereas most of the others live at the very edge of food security.

Map 6: Potential per capita calorie purchases from cash income



Source: Own data

CONCLUSIONS

The above data clearly show that households in Burundi, are food insecure. They are clearly susceptible to yield losses, as they have not enough potential for own food production even in “normal” times” as well as price and income fluctuations, as they are heavily depending on the food market for their calorie supply. This implies that improved production technologies, including disease resistant varieties from banana and cassava, can significantly improve food security in Burundi, in particular as cassava plays a major role in the Burundi diet, and so does, although to a lesser extent, banana.

References:

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Editorial

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