The Informal Food Economy in a Peripheral Urban District:  
The Case of Bandim District, Bissau

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ABSTRACT

This paper addresses the role of urban food supply for urban food security and attempts to uncover the diversity and complexity of the urban food system, through an integrated study of food production, distribution and consumption of two different foodstuffs. It focuses on informal food supply in a peripheral district of Bissau, Guinea-Bissau. The study reveals that different foodstuffs contribute differently for urban food security, are integrated in the urban food system in different ways and have distinct production, marketing and consumption structures. The highly diversified nature of urban food supply is illustrated by the variety of scales of food production and marketing activities. Poor households integrate cash and subsistence elements in their food consumption, as well as the formal and informal urban food sectors in order to improve their access to food. But within the informal food sector, small-scale retailers and low status markets seem to play a crucial role in making food available to the poor at prices they can afford. The investigation takes the form of a case-study through a qualitative approach that has potential for revealing the experience of food insecurity and the coping strategies of the urban poor in an unplanned peripheral settlement.

INTRODUCTION

This study departs from the assumption that, in spite of the availability of food in Third World cities, significant parts of their populations have poor access to it and that international and national food supply to the city are only one part of the problem. It is argued here that urban food supply plays a role in urban food security and has a very diversified nature, which needs investigation and should inform policies addressing the urban food problem. It is assumed that urban food supply and its diversity can be better understood through an integrated study of food production, distribution and consumption and a parallel analysis of different foodstuffs, an approach that is seldom attempted in studies of urban food security. This research focuses on the informal component of the food supply system of a peripheral district of Bissau and investigates the production, distribution and consumption of two basic foodstuffs of the local diet: fish and rice. The general aim of the study is to improve the understanding of the role of urban food production and distribution for urban food security and to uncover their diversity.
Third World countries have been experiencing, in the last decades, accelerated urban growth. Tropical Africa, although one of the least urbanised areas of the world now presents one of the highest rates of urbanisation. The inability of urban labour markets to absorb a rapidly increasing labour force has led to large-scale unemployment in many African cities. Rising levels of inflation, often in a context of deepening economic crisis and structural adjustment, have been followed by a fall in real wages and purchasing power. This urban impoverishment has resulted in an increasing share of urban populations who fail to secure their access to purchased food, on which they depend more heavily than rural populations. Several studies indicate that urban low-income groups spend the largest share of their income on food. Squatter settlements, in particular, are those urban areas sheltering most of the urban poor population and are where the lowest nutritional levels are probably to be found.

In spite of the dimension and gravity of the urban undernutrition problem and of the fact that food is the most basic need and highest priority of the urban poor, little research and few policy efforts have been put into urban food insecurity. Because cities are the nodes through which food aid and imports are channelled and display abundance of food, the urban poor and their food insecurity have remained largely “invisible” and undocumented.

Food security has been discussed mainly on larger scales. Inequalities in food production and distribution at the world level are well documented. Much has also been written on the food crisis in the African continent and on national food security in African countries. This discourse usually focuses exclusively on the rural sector, which is seen both as suffering the harshest effects of food shortages and also as the holder of potential solutions for national food security. The urban food problem is hardly recognised and urbanisation only appears as a stimulating factor for food imports, aggravation of food deficits and dependence. Even a significant part of the literature on African cities omits urban food security issues. However, a number of studies has emerged recognising the existence of an urban food problem and revealing a concern for the urban poor and their nutritional status. In many of these studies, urban food security is still seen as totally dependent on food sources exterior to the city and food production in and around the city is underestimated.

However, some recent studies have focused on urban food production and distribution. They document the relevance of both subsistence and market-oriented agriculture in and around urban areas, challenging the traditional view of the non-agricultural city. Particularly in the African continent, Rogerson refers to the “ruralization” of cities in Sub-Saharan Africa, in the context of economic crisis and austerity imposed by structural adjustment policies and as a result of the strategies of urban households to cope with rising living costs. Other types of urban food production, such as gathering wild foods, livestock keeping and fishing in coastal cities, are, however, very poorly documented.

Much of the research on urban food distribution has focused on the formal sector, or state-controlled marketing systems and fully capitalised retailing methods, such as supermarkets and fast-food outlets. Research on informal food distribution is limited, in comparison with other areas of the informal sector such as housing, and most of it has a partial character, addressing particular types of informal food marketing, such as urban food markets or food hawking. Few address consistently the complex patterns of the urban informal distribution network, from the producer, through a hierarchy of traders, to the consumer. And yet, activities in the sphere of the so-called “informal sector” dominate significant parts of the urban food supply systems in many Third World cities and these activities seem to play a role in improving the access to food by the
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These activities are understood here as a conceptual continuum in which, at one extreme lie small-scale activities and at the other extreme, the fully-capitalised modern production and marketing mechanisms, 'the formal sector'. Between these lies a range of intermediate activities which might still have limited access to "legal types of enterprise protection and regulation" and use relatively simple production, processing and retailing techniques. These are no less important for the urban food economy and are, therefore, a concern of this investigation.

Although these studies address urban food supply, they usually do it in a fragmentary fashion. By studying food production, distribution and consumption in an isolated manner, they offer a very partial picture of the urban food economy and a poor basis for policies aimed at the urban food problem. The present study attempts to analyse those three dimensions of urban food supply as interdependent, using the integrative framework of the "urban food system" proposed by Drakakis-Smith for understanding urban food supply in a comprehensive manner. This framework integrates the different sources of food for the city (overseas food trade and aid, domestic rural and urban food production), the different ways urban consumers have access to food (through exchange, transfer or subsistence production), the chain of distributors, processors and retailers, different urban retailing channels and outlets (formal and informal) and different forms of food consumption (in and outside the household, in public and private institutions), all interacting in a dynamic urban food system. While this investigation is informed by the international and national dimensions of the urban food system, it focuses on that part of the system where research has been scarce and which has potential for improving the food security of the urban poor in the short term, that is, urban food supply.

The present study is aimed at improving understanding of the strategies of urban poor households for improving their access to food, through an in-depth study of the household food economy: food consumption patterns and involvement in urban food production and trading activities. Fish and rice production activities are, therefore, studied as an integral part the household’s food economy. A second goal is to clarify the role of informal food production and distribution for household and urban food security. The third goal is to uncover the complex and diversified nature of the urban food system, through analysing the informal distribution networks of two different products from the supply source to the consumer and how those foods, produced in an urban peripheral area, are integrated into the wider urban food economy. The concept of 'urban' underlying this study is a permeable one and 'urban periphery' is understood as the squatter settlements that have spontaneously developed beyond the urban core and the adjacent areas where their dwellers develop food production activities.

The findings presented in this paper are the result of a 6-week field work that took place in late 1992. It consisted of an exploratory investigation of informal food production and distribution consumption, studied in the context of the entire household food economy, its strategies for securing access to food and a livelihood, particularly those that take shape in the urban informal food economy. Understanding these strategies and food insecurity as experienced by the urban poor called for a qualitative approach that proved to be very adequate to the exploratory phase of this research. The food economy of a sample of households in the Bandim quarter was studied; and rice producers, fishermen (and other food producers), together with sellers of fish and rice in the two local markets (Caracol and Bandim) were interviewed. In addition, visitors to both markets were questioned. All respondents were selected according to the nature of their involvement in the food economy and household characteristics, with the intent of obtaining the highest diversity of cases possible within each of
the target groups. A 48-hour-diet-recall register was made of what the household ate during eight non-consecutive days and how they gained access to the rice and fish consumed. Several key informants were also interviewed, such as a local elder, well informed traders, officials and experts. Thus, this case-study investigates a section of the reality of Bissau's food system and gives priority to a detailed study of a restricted number of households and individuals. The relatively small number of respondents and the limited time and financial resources available to carry out this field work determined the preliminary character of the conclusions presented here — these will be followed up in future research phases. The findings of such a study have potential for revealing the efforts for independence and food security of the urban poor and, through a cumulative process, for improving the understanding of urban food systems.

BISSAU, A CITY IN RAPID CHANGE

In spite of its modest size, 200,000 inhabitants, Bissau's population is growing rapidly at an annual rate of 5% and concentrates 20% of the total population of the country. The majority of the urban population lives in unplanned settlements lacking basic services like electricity, sewage or running water and, in some of these areas, infant mortality has reached 50%. Bissau has a colonial origin, but its rapid growth began when the long liberation war stimulated an unprecedented inflow of refugees. After independence in 1974, the socialist one-party government concentrated investments on large-scale industrial projects around Bissau, the capital. These investments and the expansion of state employment led to an intensification of the inflow of migrants. The failure of both to absorb a rapidly growing urban labour force resulted in rising unemployment.

In the context of a deteriorating economy and widening fiscal and external deficits, Guinea-Bissau negotiated the structural adjustment programme (SAP) with the World Bank in 1986. The programme was aimed at correcting internal and external distortions of the economy, stimulating economic growth and improving the balance of payments, through exchange rate realignment, reduction of public investment and expenditure, trade and price liberalisation. In spite of some improvements during the first years of implementation, the economic situation has deteriorated drastically since mid-1991, with a deepening of both fiscal and external deficits. The austerity imposed by SAP's policies has hit particularly strongly the urban population, resulting in further unemployment and frozen salaries in the urban based public sector. Bissau is experiencing an intense impoverishment process, in which the majority of its population is facing a declining purchasing power, rising levels of inflation and, very probably, a deterioration of their nutritional status.

The SAP implied a shift from a centrally planned economy towards a liberal economic environment, with relevant consequences for the food sector. The liberalisation of external trade led to a rapid increase in the imports of rice (the staple food), which came to constitute the largest share of food imports and to absorb more than 50% of the revenues of agricultural exports. Rice availability per capita has increased significantly but rice consumer prices are high because the supply of imported rice to urban areas is carried out in a monopolised economic environment. Therefore, although Bissau has benefited, since economic liberalisation was implemented, from a more regular and diversified supply of foods, such as rice, it is doubtful whether urban food security has improved. The removal of the inefficient centralised trade system and of distorted price policies stimulated some growth in agricultural
production, but mainly in the output of cashew nuts, an export crop being bartered with imported rice. The end of state control over trading activities and the deteriorating purchasing power have resulted in a rapid informalisation of the urban economy which, in the realm of food distribution, has been expressed in a rapid expansion of small-scale traders and spontaneous food markets in the urban periphery, as well as in the closing down of several food shops in the urban core area.

Bissau’s periphery provides diversified opportunities for food production activities. Subsistence rice is produced in vast swamp areas, subsistence and market-oriented gardens exist in and around the city, and artisanal fisheries are practised in the estuary of the Geba river. Many squatter dwellers are using these opportunities as a means for securing their access to food or a livelihood.

THE FOOD ECONOMY OF THE BANDIM DISTRICT

At the birth of Bissau as a colonial settlement, the Bandim area was occupied by the Papel ethnic group in the form of small rural settlements and governed by Papel chiefdoms. As the city grew, Bandim became one of the peripheral quarters of Bissau where the ‘non-civilised’ population should live. Today’s Bandim accommodates about 20,000 people and is expanding rapidly. The Papels are still the dominant ethnic group and their elders practise local justice and, according to customary law, control and administer Bandim’s land. Many are still organised in the traditional rural residential units of Guinea-Bissau, the ‘moranca’, a family compound within which several household units dwell, interrelated through kinship and one common head. The Bandim district includes extensive land beyond the built area which, by tradition, falls under the administration of the Papels. Much of this area is used for rice cultivation in salt water swamps that the Papels conquered from the mangrove, but vegetable gardens also exist. The Bandim area also contains a port for artisanal fisheries, an inlet beach area free from mangrove, where canoes and pirogues can land their catches (Fig. 1).

Food production in Bandim

Rice production in Bandim is exclusively a subsistence activity. Different scales of rice farming exist, with the elders controlling larger plots, having larger harvests and easier access to some farming inputs. But according to the rice farmers interviewed, none of the rice grown in Bandim’s ‘bolanhas’ (rice fields) ever reaches the market since, in most cases, the harvest is not large enough to sell, or even to eat until the next harvest season. The rice harvest has five main uses: consumption by the producer household, giving to relatives and friends in need, cultural ceremonies, seeds for the next cultivation cycle and feeding the labour force during the ploughing and harvesting seasons.

Rice cultivation is carried out with traditional techniques and few purchased inputs or cash investments: the seeds are separated from the last harvest, chemical fertiliser is rarely used, some tools are made by the farmers themselves and the labour used during ploughing and harvesting is preferentially recruited within the farmer’s household, ‘moranca’ and ethnic group, since workers from other ethnic groups usually imply higher cash expenses. Most of the farmers interviewed had limited and irregular access to cash, mainly through temporary jobs in Bissau’s port and from selling the produce of cashew and fruit trees. They relied very heavily on rice farming to supply their often large households with the basic staple and main component of their meals. When the harvest was not large enough to last a whole year they were often forced to reduce their daily
rice ration in order to save rice for sowing and feeding the labour force in the next working season. "Too little to eat" was one of the first problems pointed out by most of the rice farmers interviewed.

In accordance with the traditional division of labour in subsistence rice production in Bandim, men hold the position of land holders, children are obliged to participate in the most demanding seasons and women are responsible for specific tasks, such as the daily threshing of rice, which, added to their other reproductive roles, result in a much heavier work load for women than for men. Traditionally, mutual help between farming households of the same ethnic group is important in providing labour for the demanding working seasons, in borrowing tools, exchanging seeds, protecting the paddy from birds and in coping with shortage of rice. These traditional forms of social control and ethnic ties in rice production are, however, weakening in a peripheral urban area caught between a subsistence and a cash economy: women's engagement in rice production-related tasks seems to be decreasing; children are no longer a reliable source of labour as school attendance gains priority; and rice farmers have increasing difficulty in finding the necessary labour force for the ploughing and harvesting seasons within their ethnic group. Moreover, the local elders, who traditionally hold the power to administer and redistribute land, are increasingly selling the land under their control, which makes subsistence farmers' access to land increasingly
difficult. Interestingly, however, it is the resilient traditional social obligations that provide the assurance that nobody will starve in the ‘moranca’.

Other subsistence activities, such as livestock keeping, gathering of wild foods and fishing, also seem to be important for the food security of poor households in Bandim, through diversifying their diets or working as a safety valve that provides food or cash to purchase other basic food items in times of hardship. Subsistence fisheries in the mangrove area, in particular, provide many women and rice farmers with a source of protein food that could not otherwise be afforded, with some cash or a reduction of expenses in feeding the recruited labour force (which expects to be fed). But fishing activities in Bandim go beyond the subsistence level. In fact, fisheries in Bandim are not only an important component of Bandim’s food economy, providing many Bandim dwellers with a source of income and a protein food, but are also virtually the only source of fresh fish for the entire city.

Different scales of artisanal fisheries seem to occur in Bandim port. Those operating at the smallest scale catch modest quantities (10–20 kg each trip) and fish with rudimentary, and often borrowed, equipment. They use small non-motorised dugout canoes and have, therefore, to fish nearby. These are the real “artisanal fisheries” in the strictest sense of the term, carried out exclusively with local resources and know-how. Their incomes are low and usually totally used for food, except for the most basic expenses for fishing equipment. Their capacity for investment is very low or non-existent. At a higher level of performance, fishermen use a small engine (their own or borrowed) and catch larger quantities (30–40 kg per trip). Their investment capacity seems to be slightly higher but all their income is spent on food and fishing equipment.

In the highest scale of operation at Bandim port, medium-scale fisheries (called this to distinguish them from large-scale industrial fisheries), use large pirogues and large engines, so they can fish far away from the coast, usually in the archipelago area where there is a greater abundance of fish. Their catches vary greatly, but they can amount to 1 tonne. This level of operation, clearly more commercially oriented than that of small-scale fisheries, is carried out mainly by foreign fishermen settled in Bissau, the Nhomincas, who have a long tradition as commercial artisanal fishermen. Most of the nationals operate at modest scales, often close to subsistence level. This is partly due to traditional relations of production in the mainly family-based fishery enterprise, in which the oldest men usually own the equipment and control catches and profits. Young fishermen willing to engage in more productive fisheries face, therefore, difficulties in accumulating savings or in achieving leading positions. There are, however, signs of change, as new opportunities open up to the younger generation in the recently liberalised economic environment.

Artisanal fishermen operating at different scales at Bandim port experience different problems and needs. For those fishing with rudimentary resources close to the subsistence level, the main problems are the fatigue of rowing, the lack of access to distant sites more abundant in fish and the lack of a minimal capital for the acquisition and maintenance of basic equipment. For those fishing for more voluminous catches with large pirogues and engines, the main problems are the lack of good repair services, the high prices and shortages of fuel and the lack of reliable conservation facilities on shore. The latter often forces them to lower fish prices in order to sell all the catch. This fact, coupled with the steep inflationary rises in the cost of working materials during the last few years, has negatively affected their investment capacity and the frequency of their fishing trips. Although the above categories need further investigation, they reveal the diversity of local fisheries and needs experienced by fishermen operating at different levels. While official support to commercial fisheries would increase the efficiency of the fresh fish supply to Bissau’s population, action oriented to
develop small-scale fisheries would reduce the poverty of these fishermen and, hence, their food insecurity.

The study of fish and rice production by urban dwellers shows the diversified nature of urban food production and the different ways that subsistence and commercial food production contribute to urban food security. While commercial food production makes food available in the city, subsistence production improves the nutritional status of the producer household and, in the case of the main staple food, it provides farming households with a limited or irregular income with a reliable source of the main component of their meals.

Food marketing in Bandim

Economic liberalisation since 1987 has had profound effects on urban food marketing. According to key informant interviews, there has been an explosion in the number of small-scale private traders, who have tended to agglomerate where population densities generate demand or adjacent to established markets. Formerly existing markets expanded greatly and many new markets have appeared in the urban periphery, to a point that the majority of the market places in Bissau (more than 20) are of a spontaneous nature. The complexity of the hierarchy of urban market places has increased greatly, with urban markets exhibiting very different conditions.

The two market places studied, those closest to the Bandim inhabitants, the Caracol and Bandim markets, occupy different positions in the market hierarchy. The Bandim market is one of the oldest in the city, containing permanent structures raised during colonial rule. Recently, many precarious stall structures have substantially enlarged the market area. The density of sellers has increased, as well as the number of pavement sellers in the market’s accesses and adjacent roads. Bandim is the biggest and best supplied market in Bissau, performing also wholesaling functions. The Caracol market started with a spontaneous agglomeration of sellers and has expanded rapidly since 1988–1989. Women sellers built themselves provisory structures of wood covered by whatever materials were available. Caracol is almost exclusively a food market and has a lower variety of foodstuffs than Bandim. Unlike Bandim, Caracol does not benefit from municipal cleaning services, water or electricity and offers much worse selling conditions than the former.

Food retailing in Bandim and Caracol markets must be analysed in the context of the distribution networks that link supply sources with urban consumers and materialise in the wider urban arena. The complexity of these networks has certainly intensified since external and domestic trade were liberalised. Imported rice can reach the urban consumer in bags of 50 kg or in smaller quantities of around one litre or less, through different chains of wholesalers and retailers (Fig. 2): (A) rice importers, operating since 1989, make 50-kg bags of imported rice available in their wholesale warehouses to smaller wholesalers with shops inside or close to market places, to retailers who then sell it in smaller amounts or directly to the consumer; (B) the state is involved in rice importing and makes it available in the state’s warehouse to licensed private wholesalers, who then sell this rice to retailers and consumers (in 50-kg bags and sometimes by the litre). (C) state imported rice is also used to pay part of the salaries of public servants who, in case of a surplus, can sell it to other consumers or to a retailer.

There is a clear hierarchy of sellers in the rice distribution chain. From top to bottom, there are the private importers, the licensed wholesalers with their own shops ('djilas') and the retailers ('bideiros'), who usually sell on the shop platform of their supplier or on the pavement. Within each of these groups,
different scales of operation can be detected. Among the retailers, some usually buy and sell several 50-kg bags on the same day, others only buy one bag each time and it can take them 2 or 3 days to sell it. Their incomes and investing capacity are, not surprisingly, different. The first type seems to be mainly men and the second nearly exclusively women (many in old age) and while there are many sellers of the first category in Bandim market, in Caracol there are practically only small-scale sellers.

The main supply source of fish for the Bandim and Caracol markets and the city are from the mangrove, artisanal and industrial fisheries. Fish reach the urban consumer in different forms — fresh, dried, smoked or frozen — through a chain of middlemen and retailers (Fig. 3). Women fishing in the mangrove or 'bolanhas' sell very small-size fish at low prices in the markets. Artisanal fishermen operating at Bandim Port sell their catches directly to consumers or retailers in 40-kg boxes or in buckets. These retailers then carry the fish or hire a private pick-up lorry to bring it to the market. The catches of artisanal fishermen settled in the Bijagos Archipelago also reach the urban markets through middlemen who travel over the weekend to the islands and supply local fishermen with fuel and some cash in exchange for their catches.

Industrial joint ventures supply the state's cold stores located in Bissau. A restricted number of middlemen have a licence to collect fish from these cold stores. They then sell it to 'bideiras' who have no licence. Retailers can also purchase their supplies at Bissau's quay where foreign vessels land a part of their catches. Finally, middlemen visit foreign industrial vessels in order to purchase fish directly from their crews, and then sell it to retailers.

The relative importance of these different fish supply sources for the provisioning of urban markets in Bissau varies from one market to another. In Bandim market, with a high status in the urban market hierarchy, a total of 45 retailers out of 67 obtained their fish from industrial fisheries. At Caracol, a low status market, artisanal fisheries were the source of fish for the majority of fish retailers (33 out of a total of 54). Although these proportions might vary somewhat from one day to another, they indicate that low status markets might play an important role in retailing of local produce.
Fish retailers are exclusively women. Among them, a hierarchy exists expressed in different scales of operation, supply source and access to selling sites. Those with the highest status, with the longest fish-retailing careers (10–20 years long), sell in the covered and well serviced fish selling precinct of the Bandim market. They sell predominantly frozen fish originating from industrial fisheries and often manage to sell more than 200 kg of fish per day. Retailers with a lower selling status sell outside the covered Bandim precinct and at the Caracol market under provisional structures, in poor selling conditions. They buy daily between 20 and 40 kg of fish, which is usually transported to the market in a hired car. 'Bideiras', even lower in the hierarchy, have to sell outside Caracol's covered structures, on the pavement or by the road passing close to Bandim port. These retailers sell 5–15 kg of fish from artisanal fisheries. This category includes those retailers who catch and sell very small fish cheaply and apparently more rapidly than higher value fish varieties.

Although these categories have a preliminary character, they indicate the importance of the smallest fish retailers in supplying a source of proteins at prices that poor Bandim dwellers can afford. The fact that both fish and rice retailing at Caracol market is dominated by small-scale retailers indicates that low status markets such as this probably play an important role in supplying the local poor with small amounts and low cost food items.

Another conclusion is that fish and rice have different supply sources and marketing structures, involving a multiplicity of agents with different scales of operation and intervening at different levels of the marketing chains. The study of these chains reveals the diversified nature of urban food marketing and the different needs experienced by vendors at different scales of operation. While, for example, large-scale retailers selling at Bandim market complain about lack of access to credit or to a licence to collect fish directly from the state's cold stores, small-scale retailers selling at Caracol complain about lack of water, toilets, a place to sit and the exposure to sun and rain, dirt and flies.

Analysis of the distribution of different foodstuffs also suggests the complexity of the social conditions underlying people's involvement in urban food trade. On
the one hand, the rice-retailer hierarchy exhibits a gender discrimination, with women dominating the bottom of the hierarchy and operating at the lowest levels of profit and with the worst working conditions. On the other hand, fish retailing, being carried out exclusively by women operating at very different scales, shows the danger of assuming that women are a homogeneous subordinated social group. Women are, however, generally discriminated against in what concerns access to productive resources such as land and capital and subject to resilient traditional forms of control. The booming urban informal sector, in the context of the recent economic liberalisation, has opened increasing income generating opportunities for women, in a sphere traditionally dominated by them, food trade. In fact, there are signs that women’s intensified participation in informal food trade is contributing to strengthen their status in the household and the community.

Food consumption in Bandim

Half of the households studied in Bandim ate only once a day, the ‘24-hour-shot’, as it is locally called. Most households had six or more members and a large share of dependents, both children and unemployed adults. Among the main sources of income were fishing and selling fish, making and selling cookies, selling groundnuts and other petty-commodities. Only a small proportion of the households had a regular income, and almost all spent virtually all of their income on food. If one considers a national average calory intake of 2,200 kcal per capita per day, of which 90% are derived from cereals, most of these households have a very low nutritional status: with an average calory intake derived from rice (the main cereal consumed) of under 1,500 kcal per capita per day and in six households below 1,000 kcal per capita per day. There are indications that their diets are deteriorating both in quality and quantity and that the number of meals per day is suffering a reduction. This is hardly surprising considering the growing unemployment and the declining purchasing power.

Rice is the staple food and the main meal constituent, accompanied by a sauce (‘ma re’) composed of palm oil, vegetables, groundnuts, palm kernals, fish or meat. The 48-hour-diet-register reveals that the households studied rarely include meat in their meals and demonstrates the importance of fish, which is eaten several times a week by most of the households as the main source of protein. The data obtained through the 48-hour-diet-register also show that, in purchasing food, the choice between the Bandim and the Caracol markets depends on more than just the proximity of the household to one or the other. In fact, many households who usually bought rice in the former purchased fish in the latter. The preference for buying fish at Caracol is due to its better supply in cheap small-size fish, the most common sort of fish consumed among the poorest of the households studied. With regard to rice purchase, the choice also varies according to the amount of cash available to the household: when they have enough money, households prefer to buy it in 50-kg bags because its relative price is cheaper than buying it in small amounts; when they cannot afford a whole bag (and some of the households studied never can), they have to purchase rice by the litre. Therefore, households in Bandim move between large- and small-scale levels of the urban food marketing system according to their economic possibilities and the latter system plays a major role in their food security when those possibilities are limited.

The household dependence on purchased food varies according to its access to other food sources, which are probably becoming increasingly important in the face of declining purchasing power. Most of the households studied integrated cash and subsistence, modern and traditional elements in their
food consumption, in order to generate the best meals within their capacity. Subsistence rice producers depend on cash to purchase the ‘ma fe’ and, when the harvest does not last a whole year, they buy imported rice when they have cash available in order to save the paddy for times when they have no money and for the next working season. Rice gifts from other rice producers living in Bandim or outside the city or from the head of the ‘moranca’ to which the household belongs, are part of the traditional social obligations and are important in making up the shortages in self-produced paddy.

Subsistence fisheries provide poor households with access to protein foods and a richer sauce for the rice. Commercial fishermen reserve a part of their catches for 2-days’ consumption in their households, releasing cash to spend on other basic items or to purchase higher cost foods to diversify their diet. Fish gifts are also common among fishermen to those who are unable to go fishing. Other subsistence-oriented activities, such as vegetable gardening, livestock keeping and gathering of wild foods from the mangrove also seem to be important in improving the food security of poor households and as a safety valve, both as a source of food and of cash with which to purchase other basic food items in times of hardship.

In short, poor households in Bandim integrate modern and traditional elements in their daily food consumption in such an interdependent manner that loss of access to one of them would certainly put at risk the survival of many. This integrated consumption behaviour appears in a peripheral urban area, reflecting the influence of the urban environment as a cash economy and as a node for penetration of imported foods and dietary habits, as well as traditional obligations that provide a safety net in times of food insecurity.

CONCLUDING REMARKS

This study has attempted to reveal the importance of urban food supply to urban food security and its diversity. It differs from most of other studies on urban food security in the way it approaches urban production, distribution and consumption of two different foodstuffs in the same context. Such an approach facilitated the display of the diversity of the informal food system, revealed how different food products have different production, marketing and consumption structures and how interdependent these components of the food system are. Such an integrative study of urban food supply also shows that different foodstuffs produced in a peripheral urban quarter are integrated in the urban food system and contribute for urban food security in different ways: while commercial artisanal fisheries at Bandim port are virtually the only source of fresh fish for the entire city, rice production in Bandim never reaches the urban markets. The importance of this and other subsistence-oriented activities lies in their role in improving the nutritional status of poor producer households.

Attention must be called, however, to the specificity of staple production, which provides producer households with irregular or limited access to income and with a reliable source of the main constituent of their meals.

Here is revealed the overwhelming importance of informal food retailing as the main food supply channel for the majority of the urban population and, particularly, those living in peripheral quarters. It has been shown that fish and rice have different supply sources, marketing chains with different configurations and different hierarchies of traders. Urban food marketing involves a multiplicity of agents who operate at different scales and experience different needs. Particularly those at the bottom of the hierarchy, that is very small-scale retailers, provide an important service to the food security of the urban poor because they make available small amounts or low cost foods
that the poor can afford. It is indicated that a spontaneous low-status market probably plays a particularly important role in the food security of the urban poor as it seems to be dominated by the smallest scale of retailers and to be important in retailing local produce. However, the extent of this role seems to vary somewhat from one product to another. Further investigation is needed on how these markets can be improved without undermining their role in improving access to food by the urban poor.

In the face of declining purchasing power, alternative sources of food seem to be very important for the food security of urban poor households, who spend most or all of their income on food. However, it is difficult to conclude whether they are increasingly producing their own food as a consequence of the austerity aggravated by structural adjustment policies. Although some respondents have put more effort into food production in the last few years, this trend is partly clouded by the fact that farming land is being taken out of production by urban development.

The analysis of the food economy of poor households revealed that they have integrated traditional and modern elements in their diets and moved between large- and small-scale levels of urban food retailing, according to the cash and alternative sources of food available to them. It is the traditional component that keeps poor households from starving in times of hardship but it is also the one that is running the risk of extinction. How to support these traditional social obligations in the subsistence economy without reinforcing unjust distribution of resources and, simultaneously, alleviating the poverty of farming households is a major challenge.

Finally, this study reveals the importance of a peripheral urban area in supplying food for the city and in providing many of the urban poor with diversified opportunities for subsistence food production. The highly dynamic character of the urban periphery, caught between traditional and modern influences, and its specific role in urban food security needs to be better understood. In sum, the variety of strategies of the urban poor to improve their access to food, the diversity of scales of operation of food producers and sellers, of roles played by food sellers and markets with different statuses and of production, marketing and consumption structures for different foodstuffs must inform food policy if urban food security is to be consistently improved.

NOTES

5. D. Drakakis-Smith, “Food Security and Food Policy for the Urban Poor”, in J. Dahl, D. Drakakis-Smith and A. Narman (eds), Land, Food and Basic Needs in Developing Countries (Department of Human and Economic Geography, University of Goteborg, 1993).
6. “Food Security” is understood here as “access by all people at all times to sufficient food to live an active and healthy life”; definition proposed by The World Bank in 1986 and generally accepted.
17. Some sets of data are more reliable than others. The 48-hour-diet-register and the successive interviews with different household members implied an average of four to five visits to each household and permitted several opportunities for probing and the development of the necessary trust to honestly discuss sensitive aspects of the household economy. But interviews conducted during one single contact with the respondents, such as food producers and sellers not belonging to the households studied, produced a non-probed set of data whose triangulation depended on key informant interviews.
25. According to the conventional definition artisanal fisheries are those based exclusively on local resources and locally produced equipment. However, the term has come to be applied more generally to small- and not-so-small-scale fisheries which might not rely exclusively on local resources. In this study, the term is applied to all fishing activities that rely on local knowledge, capital and, to a lesser extent, on locally produced equipment, and take place within the distance of 12 miles from the coast. Industrial fisheries operate between 12 and 200 miles from the coast.
26. Tax collectors charge retailers daily, independently of how much they sell each day, which affects the already meagre profits of many.
27. These proportions are based on one single enquiry to all fish retailers in both markets, about the sources of the fish being sold.
29. The calculation of average calory intake is based on a relation of 352 kcal per 100 g of rice. Children under 10 years old are counted as half an adult.