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Responding to high food prices: evidence from a voucher programme in Burkina Faso

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1. Introduction¹

In February 2009, WFP launched its first food voucher operation in Africa, to address food security in an urban environment where food is available but beyond the reach of many because of high food prices. Vulnerable segments of the population, who were spending most of their budgets on food, risked falling into destitution as their purchasing power was weakened by increasing food prices. The voucher programme is currently targeting more than 200,000 beneficiaries in Burkina Faso's two main cities – the capital Ouagadougou and the commercial centre Bobo-Dioulasso. The aim of this emergency operation is to compensate people for lost purchasing power due to higher food prices and fewer employment opportunities. The first part of the programme ran until the end of 2009, but a budget revision with increased commitments and beneficiaries for six additional months was approved.

Given WFP's limited experience with cash and vouchers, the programme is innovative in at least two respects: it is a fairly *large-scale* voucher programme, and it operates in *urban* areas. These two aspects pose challenges. Targeting in urban areas with heterogeneous and mobile, but predominantly poor, populations is not a straightforward task, and it becomes even more complicated when the programme is large.

This chapter starts with a review of the context for the voucher programme and its current status, describing its design and implementation. This is followed by insights into the use of vouchers and beneficiaries' perceptions of the programme. The chapter then looks at the challenging task of targeting and

reviews the results of an evaluation of the targeting exercise. Discussion of the challenges in implementing a voucher programme in a low-capacity context rounds off the analysis.

2. Context, design and implementation

2.1 Urban safety net programme to respond to high food prices

In February 2008, people went out on to the streets of Ouagadougou and Bobo-Dioulasso, as in many other African cities, in violent demonstrations to protest against high food prices and loss of purchasing power. In June the same year, an assessment by the government, with United Nations agencies and non-governmental organizations (NGOs), showed that vulnerable segments of the urban population risked falling into destitution as their purchasing power weakened owing to higher prices. Between January and February 2008, prices had increased by 44 percent for the main staple maize, 30 percent for meat, and 50 percent for cooking oil. Negative coping strategies such as reducing the quantity and quality of food and removing children from school were found to be common.

Given this situation, WFP held discussions with key stakeholders, including the Ministry of Social Affairs, the World Bank, the International Monetary Fund (IMF) and major bilateral donors. These resulted in the setting up of Burkina Faso's first large-scale urban safety net programme. Under this agreement, the Ministry of Social Affairs would cater for the most destitute households, usually one-member households of elderly and disabled people, by providing in-kind assistance. WFP and its partners would assist very poor and poor households by distributing fortified food to both groups and unconditional vouchers to the very poor. A market assessment (WFP, 2008a) found a voucher programme to be feasible, as the long-standing political stability in Burkina Faso guarantees a stable operating environment with relatively well-functioning markets and reasonably good agricultural production. Nevertheless, the market assessment also revealed that there would be considerable challenges. As very little was known about the functioning of markets in peripheral urban areas, where most of the poor people in Ouagadougou live, and no secondary data were available, primary data had to be collected. Restricted capacity of shopkeepers in these areas and weak competition made clear that much attention would have to be paid to this aspect of the programme.

Voucher programmes are a novelty in Burkina Faso, not only for WFP but also for implementing partners. Although one of the main implementing partners, the Red Cross, had experience of large-scale programmes and of

operating in the two cities, it had never implemented a voucher programme. The other main implementing partner, Catholic Relief Services (CRS), had experience of a small voucher programme, but not of large-scale operations.

2.2 Design and implementation

To set up the programme and target households as successfully as possible, the Red Cross carried out a huge data collection exercise covering 142,000 households from pre-selected poor areas in the two cities. The targeting steps for the identification census were: (i) pre-select poor areas, drawing mostly on quantitative information of the Red Cross based on its long-standing experience in the two cities; (ii) approach households according to the quality of the dwelling and whether or not the household had a car or modern equipment; and (iii) collect information on the households, based on a two-step questionnaire in which the first part assessed whether or not the household was potentially vulnerable, and the second part was to be filled in only if the first part indicated such vulnerability.

Data collection started in August 2008, and final data were available in November. Households were selected for the programme on the basis of a vulnerability score calculated from the demographic profile of each household, its main income source, number of meals per day and food sources, characteristics of the dwelling, means of transport, use of health centres, and sources of medication. The 31,500 most vulnerable households – 200,000 individuals – were identified as very poor and selected for the voucher programme; of these households, 21,300 are in Ouagadougou and 10,225 in Bobo-Dioulasso. An additional 70,000 households identified as poor receive Plumpy Doz™ or locally fortified flour if they have children aged 6 to 24 months. Pregnant and lactating women also receive in-kind assistance – corn-soya blend (CSB) – during the lean season of June to September.

The local micro-finance company MICROFI, in cooperation with the Ministry of Trade, undertook a census of 250 shops in the relevant geographical areas, to assess their capacity and willingness to participate in the programme. The programme targeted small retailers, as these had been the most severely affected by the high food price crisis. In Ouagadougou, 100 shops were selected and in Bobo-Dioulasso, 50.

The voucher distributions started in February 2009 in Ouagadougou and March 2009 in Bobo-Dioulasso. The voucher distributions are administered by CRS in Ouagadougou, and the Red Cross in Bobo-Dioulasso. Households are given paper vouchers worth 1,500 CFA francs (US\$3), which they use in shops that have signed a contract with WFP. Depending on its size, each household receives a maximum of six vouchers. This amounts to an average of 45 percent

of the household's monthly income. In exchange for the voucher, people receive locally produced maize, cooking oil and soap, and imported sugar and salt. Prices are set by WFP and correspond to the current market prices of the products. The retailer redeems the vouchers through WFP's arrangement with MICROFI, under which MICROFI visits the shopkeepers regularly to collect the vouchers, checks them and reports to WFP. WFP reimburses MICROFI with a "just-in-time transfer" based on the exact value of the vouchers collected; MICROFI uses this to reimburse the shopkeepers. This process normally takes five days. Almost all the vouchers distributed – 99.95 percent – have been collected and reimbursed by MICROFI.

Several security measures have been taken to avoid misuse and duplication of the vouchers. Each beneficiary has a beneficiary card that must be shown when the vouchers are exchanged. Each voucher has an alpha-numeric serial number in which two letters are changed every month. The beneficiary card numbers and voucher serial numbers are registered during the voucher distribution, entered into a database, and checked by MICROFI after it collects the vouchers and before it reimburses the shopkeepers. The colour of the vouchers is changed every distribution period, and each voucher has an irremovable WFP hologram sticker and the stamp of the implementing partner. Vouchers also have an expiry date that is known only by the WFP project manager and stamped on the voucher immediately before distribution.

Figure 2.1 Shop exchanging WFP vouchers in Ouagadougou



2.3 Use of vouchers and perceptions about the programme

Discussions with stakeholders confirm the importance of the programme in preventing social unrest and mitigating some of the tension created by high food prices. A mid-term evaluation (WFP, 2009c) and post-distribution monitoring (PDM) (WFP, 2009j; 2009k) carried out in both cities give insights into how beneficiaries, retailers and supervisors view the voucher programme and how the vouchers are used.²

Findings from the mid-term evaluation suggest that living conditions have worsened since the start of the programme, owing to deteriorating employment opportunities and continuing high food prices. For beneficiaries, the voucher programme is the main source of resources for food. PDM results show that nearly 100 percent of beneficiaries in both cities exchange their vouchers immediately or the day after receipt, using the whole value at once. This does not seem to be owing to mistrust in the programme or to shortages of goods in the shops, as almost 94 percent of the beneficiaries say that retailers have enough of the items they want to purchase. The reason for this behaviour is believed to be that the need is very great.

Beneficiaries tend to use their vouchers on all the items in the voucher basket, but although no exact figures are available, both retailers and beneficiaries confirm that about 80 percent of the voucher value is used on the main staple maize. Only 9 percent of the beneficiaries in Ouagadougou and 4 percent in Bobo-Dioulasso report problems with using the vouchers; those mentioned relate to queuing, long distances to the shops and the quality of products.

PDM confirms that beneficiaries would like more items in the basket; 95 percent of retailers confirm that beneficiaries would like to exchange their vouchers for other products, and a third report that beneficiaries would like to exchange vouchers for money. However, the majority of beneficiaries report that they are happy with the products available: 84 percent in Ouagadougou and 68 percent in Bobo-Dioulasso. Almost all the beneficiaries who would like other products included in the basket mention rice.³

Table 2.1 Beneficiaries' views on how they benefit from the programme		
Perceived impact	Ouagadougou	Bobo-Dioulasso
	%	
Better access to food	99.5	99.2
Better nutrition status	70.5	69.0
Able to keep children in school	27.6	8.8
No change	1.0	1.2
Number of respondents	200	261

Source: PDM surveys in Ouagadougou and Bobo-Dioulasso.

Beneficiaries' self-assessment of the programme impact (Table 2.1) reveals that almost all perceive that their access to food has improved. This is expected, as the voucher value corresponds to an average of 45 percent of beneficiaries' needs. Two-thirds think that their nutrition status has improved and, especially in Ouagadougou, a fair number of beneficiaries report that the programme helps them keep their children in school. Only 1 percent of respondents report no impact at all.

A majority – 93 percent – of the shopkeepers report that the programme has improved their business situation. Shopkeepers' main concerns regarding the programme relate to the fluctuating prices of commodities, especially maize; pressure from beneficiaries to supply products that are not included in the voucher basket; occasional delays in reimbursement from MICROFI,⁴ which create problems for small retailers; and some shopkeepers' infringement of the voucher programme rules through selling rice or other products not in the basket. The few shopkeepers concerned have been either warned or suspended from the programme.

3. Innovations pose challenges – targeting in urban contexts

The Burkina Faso voucher programme demonstrates that innovations often pose challenges. The urban context entails remarkable challenges for a large-scale programme, especially regarding targeting. In spite of the careful targeting exercise, a later survey by the *Institut de recherche pour le développement* (IRD) showed that there were significant exclusion and inclusion errors (IRD, 2009). The mid-term evaluation in July 2009 confirms that this has been the programme's major challenge. The issue was brought up in semi-structured

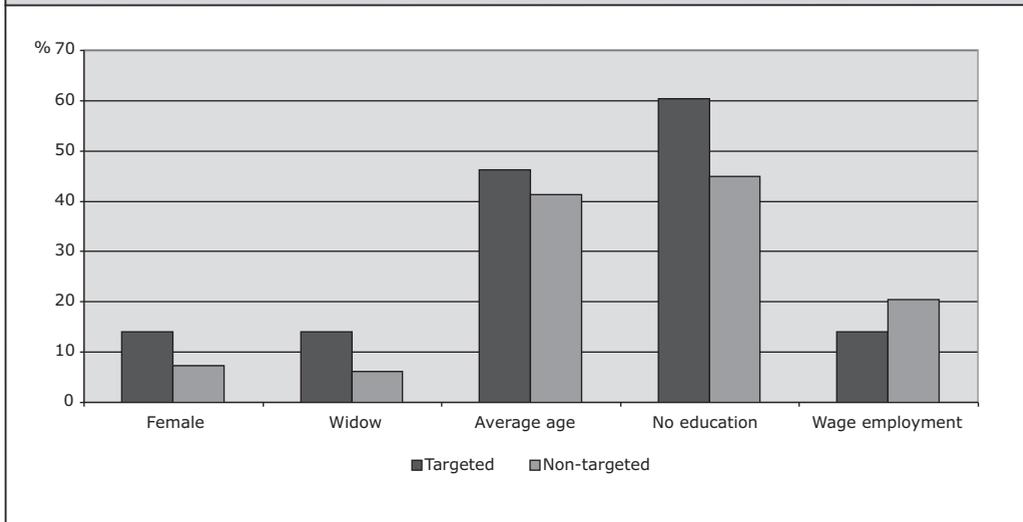
interviews and focal group discussions with key stakeholders such as local authorities, social service and health agents, representatives of different professions, and representatives of beneficiary and non-beneficiary households. While some poor households had been excluded from the programme, some non-poor households had been included. As Coady, Grosh and Hoddinott (2004) demonstrates in a survey of targeted antipoverty interventions in developing countries, targeting problems are by no means unusual. Targeting is especially challenging in societies where “everybody is poor”.

To evaluate the targeting exercise, in April and May 2009, IRD undertook a sample survey in Ouagadougou among households covered by the Red Cross identification census. A random sample was drawn from the list of households in the census, and 2,273 households interviewed, of which 577 were targeted as beneficiaries. To evaluate the performance of the vulnerability score used for beneficiary targeting, the household’s total food consumption was used as the reference measure. This was held to be the most appropriate measure for evaluating the quality of the targeting because the goal of the programme is to increase households’ purchasing power for food. Although this is probably true, it is worth bearing in mind that consumption data typically suffer from substantial measurement errors. Comparing the vulnerability score used for targeting with the food consumption measure therefore gives only an *indication* of the targeting error.

As the results of the survey would not be comparable with those of the identification census eight months earlier, a restricted set of the questions used in the census was repeated in the evaluation survey to create a restricted vulnerability score. The most important results, presented in the following paragraphs, indicate that although the beneficiaries are on average poorer than the non-beneficiaries, rather large exclusion and inclusion errors have occurred.

The results of the survey indicate that the characteristics of targeted and non-targeted households in the sample are statistically significantly different. As shown in Figure 2.2, twice as many targeted as non-targeted households have female heads, at 13.9 versus 7.2 percent, and more than twice as many have widow heads, with 14.0 versus 6.0 percent. The average age is also higher for the heads of targeted households. The education level of the heads of targeted households is significantly lower, with 60.3 percent without education versus 44.8 percent among the non-targeted households. The professions of the heads of targeted households also indicate greater vulnerability; as shown in Figure 2.2, wage employment is lower among targeted household heads.

Figure 2.2 Characteristics of household heads of targeted and non-targeted households in the identification census for the voucher programme



Source: Calculated from Table 1 in IRD, 2009.

However, the results also indicate that there is a weak correlation between the vulnerability score used for identification and the food consumption level. In other words the vulnerability score is a weak proxy for food insecurity. In Ouagadougou, of the 89,835 households visited for the census, 25,000 – or 27.8 percent – were targeted based on the vulnerability score.⁵ When the 27.8 poorest households in the survey are instead identified based on their food consumption score, less than half of these were actually targeted. Using IRD's calculations and taking into account that errors during data handling resulted in additional problems, the final *exclusion* error was calculated to be 22 percent. In total, 33.2 percent of the households were badly classified according to the food consumption measure.

To shed further light on this, the population can be ordered according to its food consumption and then divided into ten groups to obtain food consumption deciles. If the most vulnerable 27.8 percent are to be targeted, the two lowest deciles and 78 percent of the third decile should be identified. With the vulnerability score, however only about 40 percent of each of the three lowest food consumption deciles were selected, while other households from even the highest decile were also selected. This can be compared with the results of Coady, Grosh and Hoddinott (2004) which show that on average 60 percent of the poorest 40 percent were covered in interventions where means testing or proxy-means testing were used.

Vulnerability analysis and mapping (VAM) covering the whole of Ouagadougou provides a broader view of the situation, allowing further conclusions about the targeting to be drawn. Based on VAM in Ouagadougou between 2007 and 2009, an economic score was calculated for the households. Such a score is calculated using principal components analysis, based on information about each household's dwelling, assets, and access to water and electricity. By construction, the score had an average of zero for all households in 2007. Table 2.2 provides details of the score's evolution since 2007. In 2009, when the survey coverage was enlarged to cover the whole periphery of Ouagadougou – rather than only the administrative areas as in 2007 and 2008 – the score dropped to -3.04. The average score of households in the voucher programme identification census was -4.67, with targeted households scoring -7.04 and non-targeted -3.75. Thus, the households in the census are on average poorer, and the targeted households have an economic score that is twice as low as the non-targeted.

Table 2.2 Economic scores of all households in Ouagadougou and of households in the voucher census	
VAM in Ouagadougou*	Economic score
2007	0
2008	+0.29
2009	-3.04
Voucher census (2009)	
All households	-4.67 +/- 3.10
Targeted	-7.04 +/- 1.62
Non-targeted	-3.75 +/- 3.05

* This score has by construction an average of zero for the base year 2007. In 2009, the survey was enlarged to the whole of Ouagadougou, so the results of 2008 and 2009 are not comparable.

Source: IRD, 2009.

However, if the households are divided into five equal groups, each containing 20 percent of the population ordered by their economic score, it turns out that only 45 percent of the two poorest quintiles of Ouagadougou were visited in the identification census. This shows that the initial geographic targeting was not very efficient in identifying poor households. If random geographic targeting had been used, theoretically, 40 percent of the two poorest quintiles would have been covered.

Although the vulnerability score was not very efficient in targeting food-insecure households, there is no obvious alternative. The study tests the economic score, a food security index, a coping strategy index and a food diversity index, but finds that none of them substantially improve the targeting. It therefore concludes that targeting may only be substantially improved by more precise geographic targeting that identifies very limited geographic areas; by testing community-based targeting, by using easily measureable objective targeting criteria, such as pregnant women, and households with children under 2; by introducing conditionalities whereby poor people self-select into the programme; or by a combination of these. The main message is that targeting in urban areas with heterogeneous populations is extremely demanding. Time is a major issue; an in-depth assessment would be likely to identify the most vulnerable households, but cannot be undertaken if people need rapid assistance.

To explore the challenge of targeting further, a team from the World Bank is analysing the data to try to identify a more efficient solution. For the time being, WFP has decided to address the exclusion error in the latest budget revision, by including the very poor households that had initially been excluded.

4. Implementing a voucher programme in a low-capacity context

4.1 Key issues identified

Implementing a fairly large-scale voucher programme in a low-capacity context entails overcoming a number of hurdles. Some of these are described in the following paragraphs.

Finding targeted households

A major challenge in the programme was retracing the targeted households when implementation began. The identification census was carried out in August and September 2008, but the process of finding the targeted households did not start until January 2009. Rapid urbanization is the main cause of this problem: a large number of temporary shelters without proper addresses have been set up, making it difficult to return to the same dwellings; households are mobile and change homes frequently; and lack of employment opportunities makes people migrate for work. In future, global positioning system (GPS) devices will be used to facilitate this process. The problem of retracing the targeted households amplified the targeting error, because those that were not found are likely to be the most vulnerable and were replaced by less poor households.

Finding retailers with sufficient capacity

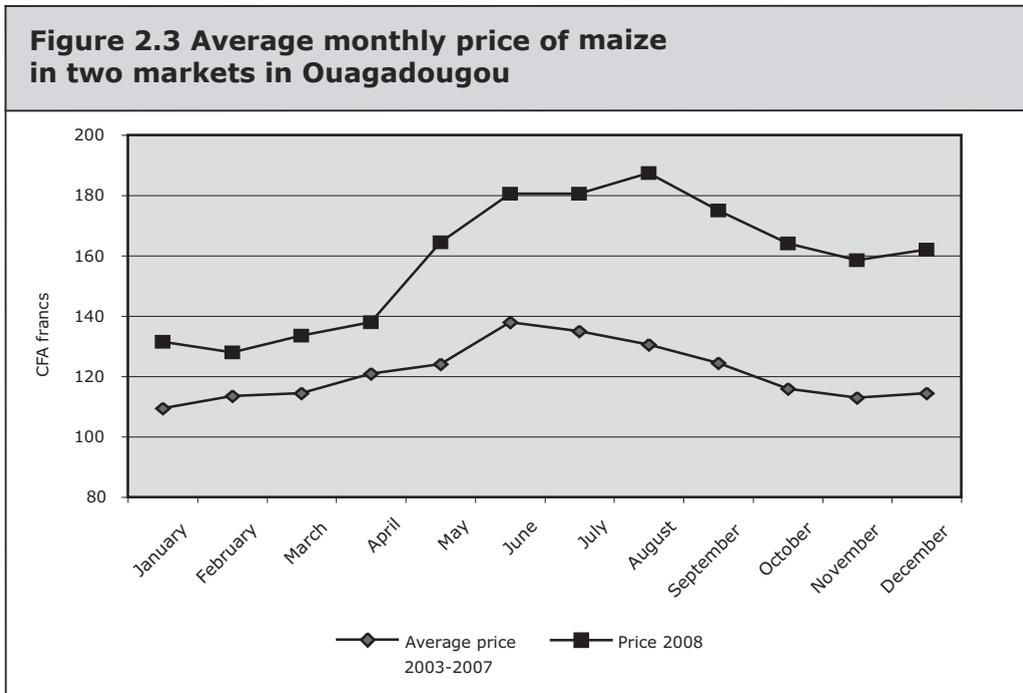
WFP wanted to target small shopkeepers who had been severely affected by the high food price crisis. Although the use of paper vouchers did not demand any major technological requirements of the shopkeepers, it proved challenging to find retailers who were close to beneficiaries, had sufficient capacity and were willing to participate in the programme. First, retailers had to be able to read and write to manage the voucher programme, but during the market analysis it was estimated that 50 percent of the shopkeepers were illiterate. Second, many shopkeepers did not sell all the products in the WFP basket, and had to be convinced to include them for the programme. The main cause of this problem is that most cereals are sold by specialized cereal traders; in addition, WFP wanted to include local rather than imported products in the voucher basket. Third, retailers needed the financial capacity to order sufficient stocks for responding to beneficiary needs, without being paid immediately; this often entails access to credit. Retailers also needed sufficient storage capacity to respond to the additional demand from voucher beneficiaries.

To ensure that beneficiaries had sufficient access to stores and that individual shopkeepers had the capacity to meet beneficiary needs, 100 shops were needed in Ouagadougou and 50 in Bobo-Dioulasso. To begin with, too few retailers were willing to participate, because they foresaw potential problems with their suppliers owing to not being reimbursed on time. To ensure that there were enough retailers to serve the beneficiaries, sensitization meetings were held to convince them to participate. A sign of the programme's success is that retailers are now queuing up to be chosen for the programme. Nevertheless, many of the shopkeepers have such low capacity that they are constantly indebted to their suppliers.

Dealing with fragile markets and protecting consumers from fluctuating voucher value

A major challenge for the programme is the fluctuating price of the main staple maize throughout the year, resulting in variable purchasing power for the vouchers. This is exacerbated by the fact that most beneficiaries use a major part of their vouchers to purchase maize. Figure 2.3 shows the average monthly prices of maize in two markets in Ouagadougou for 2008 and a five-year average for 2003 to 2007. It appears that the high food price crisis resulted in even greater intra-seasonal price fluctuations and that fluctuations are particularly pronounced in peripheral urban areas, where most beneficiaries live, especially in Ouagadougou. This latter phenomenon is due to weak competition among retailers. A further weakness of the market is that only one local producer of

cooking oil and soap has a stable supply. To avoid collusion among retailers resulting in high prices for beneficiaries, WFP sets the prices for the food basket products according to prevailing market prices. Regular monitoring of the shops is therefore necessary.



Source: Calculated from Table 2.4 in WFP, 2008a.

Dealing with scale issues

Discussions with stakeholders reveal that the scale of the programme entails challenges. A voucher programme of this scale and limited use of technology requires a lot of manual work, and is therefore very resource- and labour-intensive.⁶ The scale of the programme also increases the risk of misuse. WFP has used notable efforts to deal with this issue.

The identification census was carried out by 250 volunteers from the Red Cross. For the voucher distribution and data entry, CRS employs 55 people in Ouagadougou and the Red Cross 40 in Bobo-Dioulasso. MICROFI has 13 people handling voucher collection and the reimbursement of shopkeepers. In addition to its regular staff, WFP employs a full-time monitoring person to ensure that the shopkeepers respect the rules, do not charge higher prices than agreed and sell only the items in the voucher basket.

Scale also has repercussions for targeting. Given that the programme covers 10 percent of the population in Ouagadougou and 13 percent in Bobo-Dioulasso, people are well aware of it, which makes the issue of targeting particularly sensitive. A major challenge for personnel throughout the implementation of the programme has been how to deal with non-beneficiaries seeking to become part of the programme. As not all poor households were targeted, this has been a difficulty.

Sensitization is also more important because of the programme's scale. Actors at many levels, including local leaders, shopkeepers and both beneficiaries and non-beneficiaries, have had to be informed about the programme, the targeting and how the voucher exchange works. This is done at public events and through radio and newspapers.

Finally, the scale of the programme may lead to market distortions, especially in peripheral areas where competition among shopkeepers is low. The mid-term evaluation suggests that although most participating shopkeepers perceive that the programme has improved their business, there has been a negative impact for non-participating shopkeepers close to a "WFP shop". This issue will require careful attention as the project moves on.

Adapting to changing circumstances

The high food price emergency programme (EMOP) was planned to reduce the number of beneficiaries gradually and to close by the end of 2009. Persistent high food prices, increased urbanization – which reduces land availability for peri-urban small-scale farming – and reduced employment opportunities all contributed to a need to continue the EMOP. In addition, extensive flooding in Ouagadougou in September 2009 completely destroyed 25,000 dwellings and rapidly worsened the situation for already vulnerable households. Flood victims were initially assisted by a different EMOP, but as a large part of them already received assistance under the voucher programme, it was decided to integrate the two programmes into one. To ensure full coverage of their food needs during the reconstruction period, and to avoid altering the way the voucher programme functions, flood victims received a cash transfer, in addition to vouchers for four months, from December 2009.

Building capacity

As this is a joint WFP-government programme, capacity building is a major aspect. So far, this component has been implemented to only a minor extent. The vision for the future is that the voucher programme will be part of a large safety net programme *run* by the government. This will entail training of government staff, as they currently have low capacity to implement such a

programme. The planned government activities to care for destitute households have not yet taken place, owing to lack of resources. If partial hand-over is to occur, co-financing of the programme will probably be necessary. So far, the Ministry of Social Affairs has been trained in the distribution of Plumpy Doz™ and fortified flour and is handling that part of the programme. WFP has hired a consultant from the NGO *Action Contre la Faim* (ACF) to develop a toolkit that documents experience of the voucher programme, for use by government counterparts (ACF, 2009). In January 2010, all the stakeholders involved in social protection in Burkina Faso gathered for a workshop to discuss lessons learned and plans for the future.

4.2 Concluding remarks

This chapter has shed light on the kind of issues that can be envisaged when running a large-scale voucher programme in a low-capacity urban context. Although these have been handled as carefully as possible in Burkina Faso, challenges remain. Until now operational challenges have been a key concern. When the programme runs smoothly second-generation issues such as impacts on markets, exit-strategies for beneficiaries and continuing capacity building will have to be given more space. As new modalities of food assistance are rolled out in an increasingly urbanized world, the lessons learned from the voucher programme in Burkina Faso are important for WFP and other organizations.

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- ¹ The authors wish to thank Annalisa Conte, Country Director in Burkina Faso, and Zahid Majeed, Senior Programme Officer in Pakistan.
 - ² The mid-term evaluation was a qualitative undertaking carried out in June 2009. Data were collected through semi-structured interviews and focus group discussions with local authorities, social services and health sector agents, religious leaders, participating and non-participating shopkeepers, and beneficiaries and non-beneficiaries. PDM was carried out in Ouagadougou in March 2009, two months after the programme started. The sample included 201 beneficiaries, 45 shops and five supervisors. In Bobo-Dioulasso, PDM was carried out in June 2009, three months after the start, and included 261 beneficiaries, 50 shops and three supervisors.
 - ³ Despite beneficiaries' preferences, WFP has been reluctant to include rice in the voucher basket because it is an imported commodity and one of the main goals of the programme is to stimulate local production.
 - ⁴ This problem relates especially to May 2009, when changes in the way WFP releases funds to MICROFI resulted in temporary payment delays.
 - ⁵ While 21,300 households from Ouagadougou are currently included in the programme, 25,000 were targeted to allow for the expectation that not all households would be retraceable when the programme started.
 - ⁶ WFP is currently piloting a project that will allow shopkeepers to manage food vouchers by text messages.