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Do cash transfers improve food security in emergencies? Evidence from Sri Lanka

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1. Introduction

In December 2004, WFP launched an emergency operation (EMOP) to assist victims of the tsunami in Sri Lanka. The disaster resulted in more than 38,000 deaths and approximately 7,000 people missing. The government estimated that at least 1 million people were directly or indirectly affected, of whom about 500,000 were displaced.

The objectives of the EMOP were to ensure the affected population's food security and to support the rebuilding of livelihoods. General food distribution (GFD) was provided to more than 900,000 people between January and October 2005. In parallel to this, the government provided all affected people with Rs 200 (US\$2) a week in cash. The cash was intended to help beneficiaries meet supplementary food and other household needs not covered by WFP assistance.

In October 2005, WFP shifted to a more targeted intervention – vulnerable group feeding (VGF) – reducing the beneficiary numbers to 350,000. The cash transfer pilot project was implemented under this intervention between October/November 2005 and January 2006.

This chapter starts by briefly reviewing the design and implementation of the cash pilot in Sri Lanka. An important objective of the pilot was to compare cash with food transfers, so beneficiaries were *randomly* assigned to receive either transfer type. This allowed a rigorous evaluation of the two modalities. This chapter focuses on the results from the evaluation, paying special attention to changes in households' consumption patterns and gender-related control and

preferences. A discussion of key ingredients for success and lessons learned during the pilot complete the analysis.

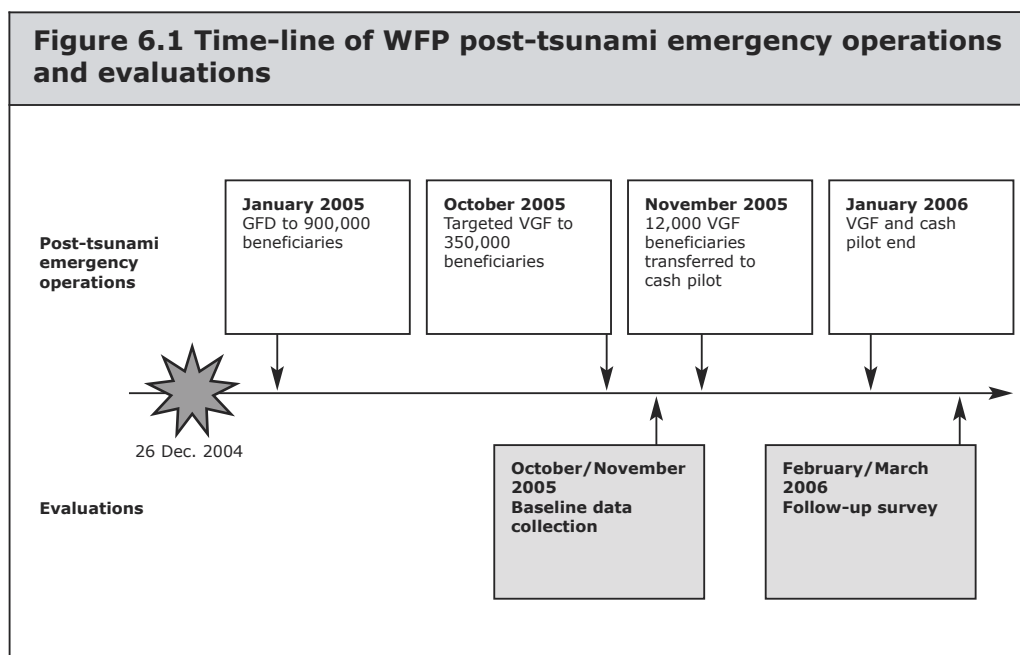
2. Context, design and implementation

2.1 Cash in emergencies?

In Sri Lanka, debate on the merits of cash versus food started in early 2005. These discussions were provoked by the availability of food, especially cereals, in the markets; the expected bumper harvest of the *Maha* crop in February/March; and the government's ban on rice imports to support domestic producers. Before the tsunami, markets were the main source of food, so the population was cash-aware. The question therefore arose as to whether the food security objectives of disaster emergency relief could be achieved by providing cash transfers to the beneficiaries under conditions of well-functioning markets. Several options were discussed, including the full replacement of food by cash.

Considering the operational challenges for WFP, which would be accountable for large direct cash transfers to beneficiaries but had little experience in this area, and government concerns over the complete substitution of cash for food transfers, it was agreed to pilot a cash intervention while pursuing all possibilities for local purchase of food commodities. WFP commissioned a feasibility study (Edirisinghe, 2006) that identified key issues in assessing the appropriateness of cash transfers in Sri Lanka and provided inputs for the design of the cash transfer pilot project (CTPP).

One main objective of the pilot was to compare the different impacts of cash and food transfers on beneficiary households' food and livelihood security and on the local economy. A broader objective was to determine the feasibility and appropriateness of cash transfers in humanitarian situations. In conjunction with the pilot, comprehensive household surveys were set up to study the impacts. The time-line of the post-tsunami EMOP and the evaluations undertaken in conjunction with the cash pilot are detailed in Figure 6.1.



2.2 Design and implementation

The CTPP was implemented between October/November 2005 and January 2006 in four rural or peri-urban divisional secretariat (DS) divisions in three districts of southern and eastern Sri Lanka, targeting approximately 12,000 people in 3,200 households, out of 312,000 VGF beneficiaries. The VGF beneficiaries had been selected according to the following criteria: (i) completely or partially damaged dwellings; (ii) loss of main livelihoods; and (iii) destitution.

The DS divisions selected for the cash pilot had to have access to a Samurdhi Bank Society, as cash was to be distributed through local branches of this bank. The impacts of the cash transfers were expected to depend on initial conditions in the intervention areas, so the divisions were selected to also incorporate heterogeneity in ethnicity, food habits, access to physical and market infrastructure, and type of local economy. Randomization was performed at the Grama Sevaka division level, so that approximately half of the beneficiary populations in each DS division were randomly selected to receive cash transfers. The remaining half remained in the VGF programme, receiving the food ration basket. The selection was carried out at a public event in which the communities themselves drew lots marked “cash” or “food”.

The food ration was based on the number of family members and included rice, wheat flour, pulses, oil, sugar and corn-soya blend (CSB). The full 12-week food ration was distributed in no more than two deliveries. The amount of cash

transfer per beneficiary was based on the local market value of the rations provided to food beneficiaries: Rs 150 (US\$1.5) per week per beneficiary. The cash was transferred to beneficiaries once every two weeks through ten Samurdhi Bank Societies coordinated by the Samurdhi Authority, the government authority responsible for ensuring proper management of the banking system and reporting.

3. Consumption outcomes, livelihood strategies and beneficiary preferences

3.1 The evaluation

WFP contracted the International Food Policy Research Institute (IFPRI) to evaluate the impact of the food and cash assistance. For this, IFPRI undertook a household baseline survey and a follow-up survey, randomly sampling 1,360 households from both groups. Comparison of before-and-after outcomes would be used to analyse various components of food and non-food expenditure, diet quality and diversity, and strategies for managing and controlling resources within households. As the surveys covered both food- and cash-receiving households, it allowed a direct comparison of the impacts of the two types of assistance.¹ Three aspects were studied: possible changes in consumption patterns when beneficiaries receive cash rather than food; the programme's impacts on livelihood-related decisions; and how beneficiary households perceive programme benefits and self-assess cash and voucher programmes.²

3.2 Effects of cash versus food on household consumption

Expected impacts on household spending

Standard economic theory predicts that much of the effect of a transition from in-kind food to cash transfers depends on whether or not the food ration is infra-marginal – that is, whether or not the household consumes greater quantities of the food items than the ration provided in the basket. According to theory, when the ration is infra-marginal, the switch to cash transfers should not have a major impact on household expenditures. Results from the baseline survey suggest that the rations of all the food items distributed, except wheat, were infra-marginal. The ration of the main staple rice was 1.4 kg per person per week, whereas households reported that they consumed 2.7 kg per person per week. The ration for wheat was the same as for rice, but consumption was only 0.98 kg per week. It could therefore be expected that levels of rice consumption would remain similar but those of wheat would decline when households switch to cash transfers.

However, factors other than the infra-marginality of food transfers may also have an impact on consumption patterns. First, a possible difference between the market value of cash versus food may result in unintended income effects, and price movements during the programme period may erode the value of the cash. Results from the baseline and follow-up surveys suggest that the value of the food and cash transfers stayed approximately the same throughout the pilot. However, a market survey suggested that the price of the main staple, rice, increased from an average of Rs 39/kg in December 2005 to Rs 50/kg in January 2006, indicating that the real value of the cash transfer decreased during the pilot.

Other important aspects may affect household consumption. Short-term cash transfers might be treated as windfall, leading to discretionary spending. There may be a change in who controls resources within the household, which may result in changed consumption patterns if preferences differ between men and women in the household. Finally, increased liquidity enables lump-sum purchases. Increased spending on non-food items may also be a result of reluctance to hold cash for security reasons, or of pressures to share cash with other people, such as relatives and friends (Sharma, 2006b). The following sections highlight major findings regarding changes in consumption behaviour.

Cash transfers increased food diversity, but also expenditures on non-food items

The pattern that emerges when studying the differences in expenditure and consumption³ behaviours between cash- and food-receiving households indicates that on average there are some significant changes in habits when people switch from food to cash transfers. Figure 6.2a shows the general pattern of weekly per capita expenditures for cash- and food-receiving households. Food expenditures increase between the baseline and follow-up surveys for both cash and food households, but the increase is higher for cash households, and the difference is statistically significant. Cash-receiving households are more likely to spend some of their benefits on improving the diversity of their diets, by buying more expensive cereals and larger amounts of meat, dairy products and processed foods. This is illustrated in Figure 6.2b, which shows the expenditures on a selected number of food items. Increased alcohol expenditure was observed for both groups but, contrary to widely held expectations, cash transfers did not increase the expenditures on alcoholic beverages more than food transfers.

Regarding the commodities in the food basket, cash households reduced their consumption of the basic staple rice, and also of wheat, as shown in Figure 6.2c. As the wheat ration was extra-marginal, this reduction was expected. The reduction in rice consumption is more surprising. It seems that increased

diversity in consumption was achieved at the expense of reduced consumption of these two basic staples.

Figure 6.2a Aggregate weekly per capita expenditures

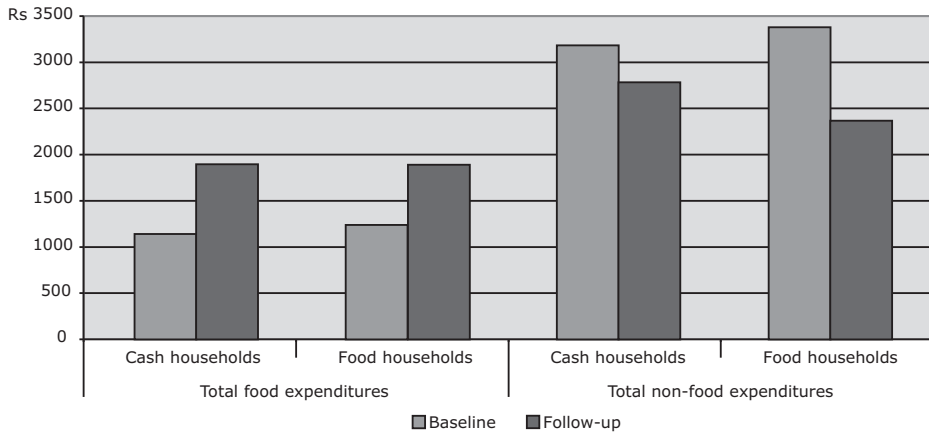
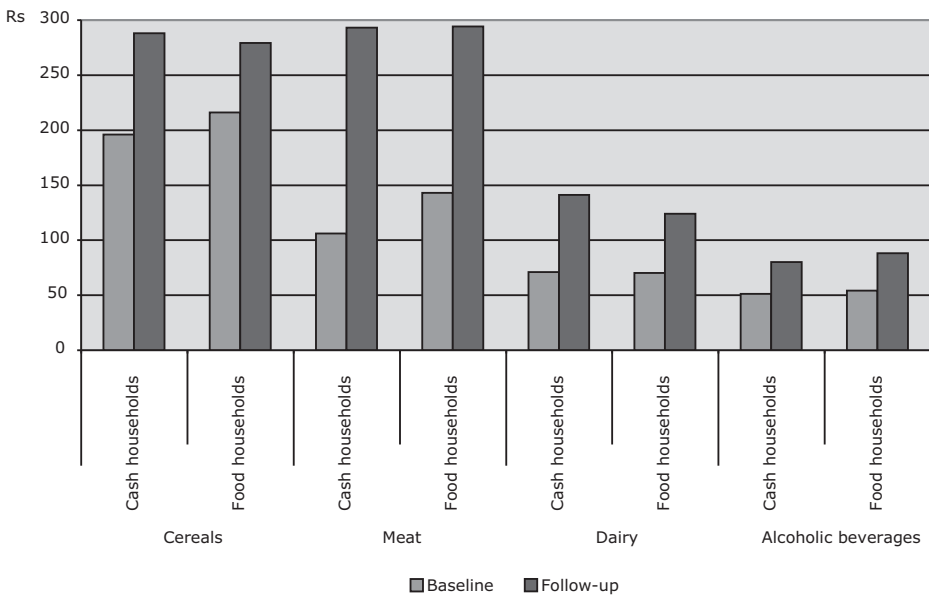
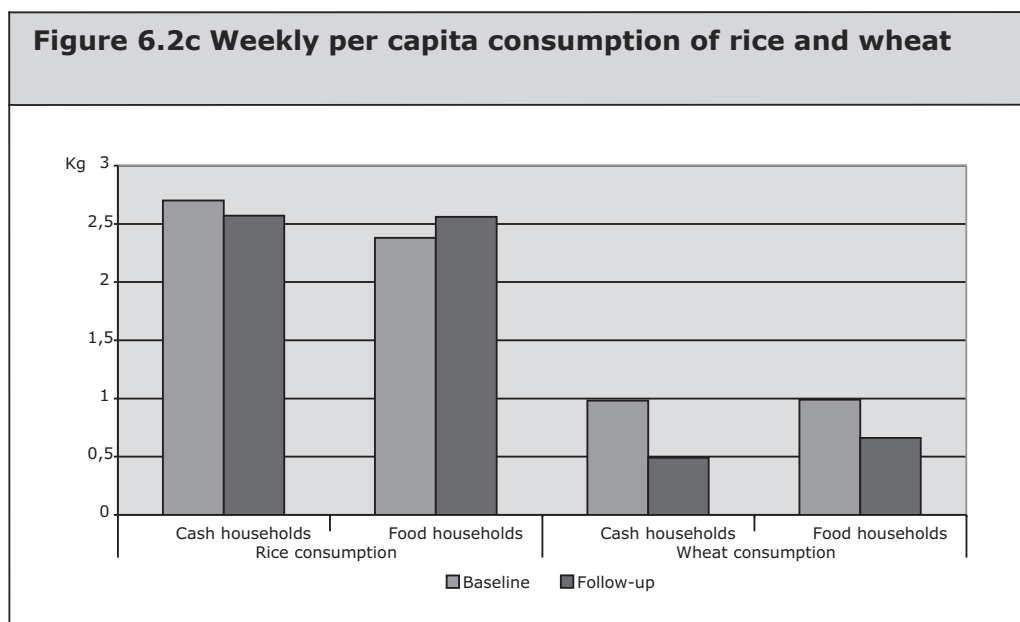


Figure 6.2b Weekly per capita expenditures on selected food items





Source: Calculated from Table 10 in Sharma, 2006a.

Figure 6.2a shows that total non-food expenditures for both groups declined between the baseline and the follow-up surveys, but that the decline was larger in the food households. Again, this difference is statistically significant. The decline in these expenditures can be at least partly attributed to the government stopping its cash assistance when the GFD ended and the VGF started. Concerning non-food expenditure, the major difference between the two groups is that cash households *increase* their expenditures on clothing, while food households *decrease* theirs.

Poor areas and households show larger cash effects

When household behaviour is analysed according to geographical location, significant differences appear regarding how or whether households adjust their consumption as a result of cash transfers. While two of the four DS divisions, Habaraduwa and Hambantota, in the south of Sri Lanka, showed almost no statistically significant changes in consumption patterns, cash-receiving households in Korralai Pattu North/Vaharai in the east adjusted their consumption habits considerably. This is also the only DS division where calorie intake *decreased* significantly as a result of cash transfers. While calorie intake decreased for both cash- and food-receiving households in Korralai Pattu North/Vaharai, it decreased by 250 calories more in cash-receiving households.⁴

Several factors distinguish Korralai Pattu North/Vaharai from the other DS

divisions. First, the households are poorer, with household expenditures that are 33 percent lower than the average for the other three locations. Second, as shown in Table 6.1, their dwelling conditions were more affected by the tsunami, they are less educated, and they depend more on casual labour markets than households in other locations. In this DS division, 88 percent reported irreparable tsunami damage to their houses; in other locations irreparable damage varied from 35 to 47 percent. As a consequence, a far higher share of the households in this DS division live in temporary shelters.

Table 6.1 Selected household characteristics, by DS division

	Habaraduwa	Hambantota	Korralai Pattu North/ Vaharai	Manmunai Pattu
% of households with house irreparably damaged by the tsunami	46.5	41.5	88.1	34.6
% of households living in temporary shelters	56.7	46.0	82.3	48.0
% of household heads who are wage labourers	11.5	11.0	40.6	46.8
Average years of education of household heads	7.8	7.7	3.8	5.5

Source: Table 3 in Sharma, 2006a.

The greater degree of poverty means that households have greater liquidity constraints; the replacement of food with cash transfers improved liquidity, and so was likely to induce a reallocation of household resources to meet non-food needs and to purchase foods not provided by the food ration received previously. This occurred in spite of the DS division having poorer infrastructure and access to markets than the other divisions.

Further analysis reinforces the view that the cash effect is higher for poor households. When the survey households are divided into those living in temporary shelters and those living in own homes or with relatives, the cash

effect is mostly insignificant for households that are living in own homes or with relatives. Those that live in shelters spend significantly more resources on non-food expenditures and diversifying their diets when they receive cash. A similar pattern is found in households with lower education levels. Cash transfers have a significant effect on the expenditure patterns of households with low education, while their effects on highly educated households are mostly insignificant.

Cash transfers appear to have some impact on livelihood decisions

It is important to compare the effects of cash transfers on people's livelihood strategies with those of food transfers. This is, however, difficult to ascertain from a short cash transfer programme. Two indicators were used to study livelihood strategies: household members' decision to engage in the casual labour market, and households' levels of outstanding debt. The proportion of households engaging in the wage labour market increased for both the cash group, by 60 to 71 percent, and the food group, by 58 to 79 percent, but the increase in the food group is higher, resulting in cash transfers having a negative effect on labour market participation of 10 percentage points. This effect is statistically significant at the 5 percent level. There is therefore some indication that the increased liquidity provided by cash reduced the need to engage in the wage labour market to finance essential cash purchases.

Another interesting question is whether receiving cash instead of food decreases the need for cash loans or makes it easier to pay back outstanding loans. Results indicate that outstanding loans decreased between the baseline and follow-up surveys for both groups, but slightly more for the cash-receiving households. However, the difference between the groups is not statistically significant.

3.3 Gender and cash transfers

Most decisions regarding the use of cash are taken jointly

One factor that may contribute to cash and food programmes' different outcomes is the control of resources and divergent preferences within households. Gender-related control and preferences are particularly important issues. Decision-making on how to use cash or food transfers within the household may affect the way assistance is utilized. A commonly held perception is that women have more decision power over food while men have more over cash.

All the beneficiaries in the survey were asked for their perceptions of the programme and of how participation in the programme affected their well-being. When the head of household was a man, his spouse was asked the same questions. Table 6.2 reports on these household perceptions, by gender and by whether the household received food or cash.

Table 6.2 Household perceptions of the programme, by transfer type and gender			
	Male household head	Spouse of household head	Female household head
	%		
	Food-receiving households		
Would have preferred to receive cash	45.7	34.1	47.6
Reported that decisions on use of food ration were made jointly by head and spouse	53.5	53.7	
Reported that he/she made decisions on use of food ration	27.0	16.2	
Reported that male adults benefited most from the food ration	7.5	0.8	
Reported that all members of the household benefited from the food ration	85.0	77.3	
Reported that food ration simply replaced food that would have been purchased in the absence of the programme	39.6	33.7	41.0
	Cash-receiving households		
Would have preferred to receive food	54.3	52.7	63.0
Reported that decisions on how to spend the cash transfer were made jointly by head and spouse	63.6	61.6	
Reported that he/she made decisions on how to spend the cash transfer	21.7	12.8	
Reported that male adults benefited most from the cash transfer	2.5	0.4	
Reported that all members of the household benefited from the cash transfer	91.7	83.7	
Reported that less would have been spent on food in the absence of a cash transfer	28.9	27.9	28.7
Reported that less would have been spent on clothing and footwear in the absence of a cash transfer	57.4	52.1	53.5

Source: Tables 6 and 8 in Sharma, 2006a.

While about half – 54 percent – of both household heads and their spouses in male-headed food-receiving households indicated that they made decisions on how to use the food ration jointly, males were more likely to respond that they made the decisions themselves, at 27 percent, compared with only 16 percent of spouses reporting themselves as the decision-maker.

In cash-receiving households, as many as 64 percent of the male household heads and 62 percent of their spouses indicated that decisions on how to spend the cash transfers were taken jointly; 22 percent of the male household heads and 13 percent of their spouses indicated themselves as the decision-maker. These results counter the concern that women lose decision-making power when cash is distributed rather than food.

A similar pattern was found when participants were asked whether the transfers benefited all members of male-headed households: 85 percent of heads and 77 percent of spouses in food-receiving households, and 92 percent of heads and 84 percent of spouses in cash-receiving households responded that all members benefited from the transfer.

To clarify the mechanics of the impacts of food and cash transfers on household consumption, food-receiving households were asked whether the food ration simply replaced food that would have been purchased even in the absence of the programme. The answers reflect no major differences between male and female heads: approximately 40 percent indicated that this was the case. This means that the food ration did not increase the household food consumption level but released resources for other goods and services. In cash-receiving households, fewer than a third of both men and women indicated that they would have reduced food consumption had the cash transfer not been received. In contrast, more than half indicated that expenditures on clothing and footwear would have been less in the absence of the cash transfer.

Household consumption is more diversified when women have control

To study the impact of decision-making power on household consumption, the surveyed households were divided into two groups: those where the spouse of the male household head indicated that she could control the money for food purchases, and those where she could not. 70 percent belonged in the first group. The results suggest that women's control is important for food versus cash transfers. First, households where women have low control spend more on non-food expenditures when they receive cash rather than food. However, expenditure on clothing is always higher when households receive cash, regardless of whether women have control. Second, diets tend to become more diversified when a household receives cash and a woman has control over how

the money is spent. Households where women have high control spent more on cereals and meat, and less on alcoholic beverages and dairy products. Households that received cash consumed less of the basic staple rice, regardless of women's control.

3.4 Beneficiary preferences for transfer type vary by geographical location and gender

When food-receiving beneficiaries were informed that other beneficiaries had received cash rather than food and were asked whether they would have preferred this option, fewer than half of the households responded that they would have. The result did not differ between male-, with 46 percent, and female-headed households, with 48 percent. As reported in Table 6.2, spouses of male-headed households still had a relatively strong preference for food; only 34 percent would have preferred cash, even though earlier results indicated that cash does not seem to affect women's decision-making power.⁵

In the cash-receiving households, slightly more than half, 54 percent, of male household heads would have preferred food rather than cash, compared with 63 percent of female household heads. Although not reported in Table 6.2, the divergence in perceptions among locations was dramatic. In Habaraduwa, the preference for cash was nearly universal, with only 5 percent of the cash-receiving men and women indicating a preference for food, whereas in Manmunai Pattu the preference for food was nearly universal, with 97 percent of men and 96 percent of women preferring it to cash. This preference for food is probably related to the relatively high food prices in Manmunai Pattu, especially for the main staple rice, and because distances to markets are long.

4. Key ingredients of success and lessons learned

4.1. The context was favourable for cash interventions

As well as the lessons learned regarding the impacts of food and cash transfers on household consumption, several other insights of cash interventions emerged as a result of the pilot (Tchatchua, 2006). On the whole, the pilot was considered a success. Several factors contributed to this. First, *the context was favourable for cash interventions*. The CTPP was implemented in a period when economic recovery, rehabilitation and reconstruction had already commenced, and food markets were well integrated. The presence of a comprehensive road network, a sizeable transport sector, large numbers of wholesalers and traders and a large number of active regional markets supported this view. Surpluses in food producing areas met the demand from urban centres and other deficit areas.

Rural markets also had linkages with the central markets for obtaining adequate supplies of imported foods such as sugar and pulses. In general, the markets were not facing any significant bottlenecks and were capable of meeting increased consumer demand. The exception was Korralai Pattu North/Vaharai, which was controlled by the Liberation Tigers of Tamil Eelam (LTTE). Here, an unforeseeable deterioration in security led to restricted goods movement, resulting in higher food prices, which eroded the transfer value.

This highlights the importance of carrying out thorough market assessments before starting a cash intervention, and also the need for continuous monitoring of both the security and the market environments, so programmes can be adapted as necessary. Korralai Pattu North/Vaharai had poorer physical and financial infrastructure and was militarized to a higher degree than the other DS divisions. Prices and transaction costs were therefore higher, leading to a lower real value of the cash transfers compared with other locations. This led to the recommendation that cash transfer rates should be area-specific and be regularly adjusted to market prices. It was also concluded that travel costs should be considered when markets and banking facilities are distant (Campbell, 2006).

A second key aspect of success was that *working through local banks was effective*. The Samurdhi banks were suitable partners because they had previous experience of large-scale cash distributions, extensive geographical coverage, and knowledge of the targeted communities. Bank staff members were trained and – most important – were involved in the design of the disbursement system and coupons. They were efficient, incurred low logistics costs, and accounted for all the cash transferred from the WFP bank account. Nearly all the cash beneficiaries involved in monitoring the process expressed satisfaction with the bank services, although some had to travel long distances to collect their cash entitlements. It was therefore concluded that a feasibility study should include assessment of beneficiaries' physical access to banks, to guide the design of an appropriate delivery mechanism. Assessing the feasibility of mobile delivery mechanisms was recommended for future projects.

Third, *cash was more cost-efficient than food* in all DS divisions. The cash transfer programme was found to be at least 5 percent cheaper to implement when food delivery costs were calculated as landside transport, storage and handling (LTSH) costs and external transport (Campbell, 2006). The lower cost of delivering cash was largely due to low local food prices and the existence of a well-functioning bank network, compared with relatively high costs for moving food. However, this should not be taken as a generalization about cost-efficiency in other contexts; factors such as higher food prices, insecurity and lack of financial infrastructure may make cash deliveries more expensive.

Finally, project management was *successful owing to the pilot's dedicated*

project manager. At the time of project planning, cash programming was a new activity for WFP, which did not have the necessary in-house technical expertise to implement a cash pilot project in Sri Lanka. The relevant skills were therefore sought from outside. An Oxfam GB officer who had been working in tsunami-affected Sri Lanka was seconded as the CTPP manager, and Oxfam also provided technical assistance through a food security and livelihoods adviser.

4.2 Cash has not been mainstreamed owing to political instability

Despite the positive impacts of cash transfers on beneficiaries' food consumption and livelihoods, cash transfers have not been mainstreamed into WFP operations in Sri Lanka owing to political and security challenges. The security situation deteriorated drastically in July 2006, when the 2002 ceasefire agreement between LTTE and the Government of Sri Lanka was effectively abandoned, peace talks failed and regular outbreaks of fighting in the north-east caused large-scale displacements.

This deterioration of the political and security situation, coupled with embargoes and closures of main transport routes significantly hampered goods movement and trade in conflict-affected areas, resulting in food shortages and rising costs for basic commodities. This had serious impacts on the food security and humanitarian situation of the civilian population. In response to needs, WFP launched GFDs, as cash was deemed inappropriate. However, it is believed that WFP Sri Lanka will consider including cash and vouchers in its portfolio as soon as the security situation allows it.

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- ¹ The difference-in-difference method, normally used when beneficiary selection is non-random, was used to measure programme impact. The rationale behind this was that randomization at the community rather than the beneficiary level resulted in statistically significant differences in the demographic profiles of the two treatment groups.
 - ² Review of the results from the evaluation draws extensively on Sharma, 2006a.
 - ³ Expenditures refer to what people spend their money on, and consumption to the quantity of certain food items that people consume.
 - ⁴ The baseline survey coincided with the Muslim Ramadan and the Hindu Diwali holidays. It is therefore not surprising that there was a decrease in food consumption between the baseline and the follow-up surveys. Nevertheless, the randomized design of the cash pilot guarantees that the observed differences in calorie intake and other outcome variables between food- and cash-receiving households can be unambiguously attributed to the receipt of cash transfers.
 - ⁵ It is worth keeping in mind, however, that households' behaviour may differ from what they report.