

Learning from cash responses to the tsunami

Issue Paper 1

Analysing markets

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In providing any sort of assistance, humanitarian actors need to analyse the markets for key goods to see how the disaster has affected them. This is as necessary for food aid, shelter or seed provision as it is for cash transfers. That said, there has tended to be greater emphasis on the need for market analysis in cash-based programming, and this is certainly crucial in judging whether cash is appropriate.

This Issue Paper explores the importance of market analysis in the planning, delivery and management of cash responses. Key questions to ask about markets in thinking about the appropriateness of cash are relatively simple. Essentially, they are:

- What goods are people likely to buy if they are given cash? This should tell you what particular markets you need to look at.
- Where did people buy these goods before the disaster?
- How has the crisis affected markets? Issues to consider include damage to transport links, warehousing and the impact of the disaster on traders, both in terms of lives lost and lost stock.
- Can people buy what they need in local markets?
- Where will people go to buy goods if they are given cash? Will markets be accessible in terms of distance, cost and price?
- How competitive is the market, and will local markets be able to respond to an increase in demand?
- What is the normal seasonal pattern of prices, and how is the disaster likely to affect it?
- If there is a risk of prices increasing, are rises likely to be directly caused by the cash transfer, or are they related to other factors?
- If a surge in demand for particular goods is likely following a disaster, will markets be able to respond?
- Will cash for work projects affect labour markets?



A shopkeeper waits for customers in a refugee camp in Calang, Aceh, February 2005

- Will cash have positive multiplier effects on local economies?

What markets need to be analysed?

Depending on the objectives of the cash transfer, the types of market being analysed may be different. Market types include:

- Markets that provide the goods people are likely to buy with the cash they are given (food, shelter materials, goods for businesses, local debt and credit markets).
- Labour markets, particularly for cash for work as this may affect labour for local enterprises.

Market analysis is critical to cash transfers that aim to enable people to meet basic needs, including access to food. If food is not available in sufficient quantities in local markets, or if prices are too high, cash projects may not enable people to buy enough food to meet the project's nutritional objectives.

If cash is being provided to support the recovery of livelihoods, the project needs to be aware of the range of goods that people are likely to buy in order to recover their livelihoods, and the price trends of these goods in local markets. The range of goods is likely to be

This is the first of six issue papers which form part of a project to document learning around cash based responses to the Indian Ocean tsunami. The project was funded by the British Red Cross, Save the Children UK, Oxfam GB, Mercy Corps and Concern Worldwide. Further information and resources are available at: http://www.odi.org.uk/hpg/Cash_vouchers_tsunami.html

wide, from sewing machines to livestock to household supplies for petty trading. Livelihoods programmes also require market analysis that deals with the other end of the chain: grant beneficiaries will be producing products and services for which the market is likely to be distorted and volatile. Supply chain analysis can help to identify blockages that may reduce the chances of a successful outcome.

Shelter programmes which use cash also require market assessments, to identify whether the market can supply the building materials required, to assess the risk of inflation and to assess environmental concerns, such as where timber in local markets is being sourced. In the tsunami recovery programme in Sri Lanka, the price of some goods increased several times over, which meant that the cash grants the government provided for shelter were not necessarily sufficient to rebuild houses. In response, NGOs topped up what the government was providing.

In cash for work projects, a key question is whether projects are disrupting local labour markets. This is discussed in more detail in the issue paper on setting the value of cash transfers (Issue Paper 3).

To summarise, key issues for different types of cash project are:

- Cash for basic needs – the availability and price of food.
- Cash for livelihoods – the availability of goods needed to restart businesses, and the market opportunities available for these businesses.
- Cash for work – rates for casual labour and the availability of workers for local enterprises.
- Cash for shelter – the availability and price of key shelter materials.

Skills, timing and complexity

To be useful, analysis of markets needs to be both timely and accessible. Detailed market assessments that arrive too late to influence decision-making, and which contain dense and hard-to-interpret economic language, are likely to be unhelpful. There is a need for rapid analysis at the start of the emergency, to allow initial judgements to be made; for ongoing monitoring of markets, to see if initial assumptions about whether markets can meet demand are proving correct; and for more detailed analysis when time and space allow. Detailed market analysis may call for specific skills, and external experts may need to be hired. All the same, this should not be left exclusively to a few in-demand specialists: a basic level of market analysis should be within the grasp of a wide range of staff.

Markets need to be analysed at all stages of the project cycle:

- Assessments – to understand the impact of the disaster on markets, and thus whether cash is an appropriate response.
- Project design – to find out where people will buy key goods and what is happening to prices, in order to decide how much cash people should receive.
- Monitoring – to track prices for key goods and to see where people are buying items and what they are buying.
- Evaluation – to judge the appropriateness of the cash response on the basis of monitoring data, and perhaps a more detailed analysis of markets.

More in-depth analysis may also be needed during implementation if regular monitoring is not providing enough information in key areas.

Inflation risks?

An important concern with any cash project is the risk of inflation. Analysing the likelihood of inflation is important in judging the appropriateness of cash or in-kind assistance. However, it is often difficult to predict what will happen to prices, particularly in major disasters where large-scale recovery is dynamic, unpredictable, uncoordinated and complex. This means that prices need to be continually monitored, even if the risks of inflation are initially thought to be small.

There are essentially two possibilities: that the cash project itself causes local inflation in particular goods; or that inflation results from other, wider causes. If the cash project itself is causing inflation, people who are not in receipt of cash are being actively disadvantaged because the intervention is making goods more expensive. If inflation is the result of other factors this is still a concern, because it means that the value of the cash being provided is reduced. To assess whether a rise in prices is directly linked to a particular project, prices may need to be monitored in neighbouring markets where cash

Markets and the Pakistan earthquake

In October 2005, a powerful earthquake hit Pakistan, killing more than 73,000 people. The World Food Programme (WFP) carried out a market assessment and trader survey in the most food-insecure areas. Market analysis proved useful because the damage to markets was not uniform: some had been utterly destroyed, while others had quickly recovered. The survey concluded that food assistance in urban areas would be likely to hinder market recovery, and WFP redirected its food aid distributions to rural areas.

Sources: SENAC Brief (2006); Donovan et al. (2005).

projects are not being implemented. It is also useful to consider the size of a cash programme relative to the local economy and other inflows of cash, such as remittances.

Some of the price information needed to monitor for inflation – notably comparisons with regular seasonal trends – may already be available, and agencies should make efforts to find existing price data and monitoring information wherever possible.

Multiplier effects

Cash projects can have multiplier effects on local economies by boosting local business and trade. The extent to which this happens depends on whether the goods that people buy are produced locally. Local production is likely to result in greater multiplier effects, although the purchase of imported goods is still likely to help local traders. Measuring multiplier effects in a quantitative sense requires far more data than is normally collected, but evaluations have made qualitative observations about the impacts of cash grants on local economies. A Save the Children cash and voucher project in Indonesia, for example, found that the project had enabled participating shopkeepers to build up their stock and increase their customer base (Cole, 2006).

Contingency plans for rising prices

Market assessments should identify an acceptable price range for a particular commodity (with reference to normal, pre-disaster prices for the season, with some adjustment for the post-disaster context), and a threshold beyond which key commodities are out of the reach of most people. Agencies should draw up contingency plans for the most likely price scenarios, which explain what the agency or other actors will do if prices increase beyond the acceptable range. Contingency plans might involve increasing the size of the cash grant, switching from cash to in-kind assistance or providing support to markets.

Supporting markets

Market analysis can also be used to develop interventions to support market recovery. This might involve improving or repairing infrastructure, such as damaged roads or bridges, to enable the movement of goods. It might also involve direct support to traders, for instance through the provision of credit so that merchants can rebuild their stocks. A Save the Children cash programme in post-earthquake Pakistan included a Rs75,000 grant to 100 village shopkeepers to help them to restock. Voucher programmes often aim to support markets, and seed fairs may help to promote markets and develop links between traders and producers.

Cash transfer projects do not necessarily require the support of specific traders. At the same time, it

CARE's pilot voucher programme in Aceh

Under CARE's pilot voucher programme in Indonesia, 15 vendors were contracted to redeem food vouchers from beneficiaries. They were paid a 5% commission on the contracted price of the food redeemed. An evaluation noted the high degree of collaboration between the vendors and CARE. The process whereby vendors were recruited included collecting information on their capacity, an assessment of stocks of food held in normal times, the adequacy of storage space, whether the vendor had sufficient working capital and whether an ongoing relationship existed with food suppliers.

Voucher programmes risk excluding small traders who are unable to get credit for the stock sold until they are reimbursed by the NGO. Traders might also be concerned about whether the NGO can provide timely reimbursement. CARE's reimbursement took a matter of days, but the agency did not offer credit to small traders.

Sources: CARE (2005); Meyer (2005).

may be important to let traders know about planned cash projects so that they can respond to the increased demand.

Market analysis in the tsunami response

Markets in many areas recovered quickly after the tsunami. Agencies found market analysis challenging, partly because of a lack of skills and knowledge. Nonetheless, there were signs that good practice is developing in this area.

While some agencies collected price data, they rarely plotted time-series graphs comparing different commodities in the same market, and a single commodity in different markets. None attempted to compare prices with pre-disaster price trends or to consider seasonality of prices. Oxfam in Aceh graphed prices of cereals in cash for work villages compared with villages where there was no cash for work project. It found an overall increase in both areas, but no difference between the two areas. There was potential to draw more on existing government sources. In Aceh, the government's statistical agency collected data on a regular basis, including the consumer price index, and this was freely available to NGOs in Aceh. Few agencies made use of this information, and at the end of December 2005 many agencies were surprised to note the extremely high general inflation over the course of the year in Aceh compared to other provinces.

In both Sri Lanka and Aceh, production of the main staple food was largely unaffected; the

harvests that were due two months after the disaster were reportedly good, and there was a surplus on consumption requirements. Food insecurity was thus not a supply failure but a demand failure: people's income sources had been destroyed along with their homes and villages.

A Save the Children rapid livelihoods assessment in Sri Lanka, carried out in early January, reported that:

In almost all areas, markets were found to be functioning normally, and prices were unchanged from pre-tsunami levels. With goods available in the market and a rice harvest due within the next month, cash-based interventions will be more appropriate than food aid to meet ongoing relief needs (Save the Children, 2005).

Likewise, a WFP mission in Sri Lanka noted that 'all the studies, including WFP's emergency needs assessment have concluded that markets are functioning normally and the stores are adequately stocked'.

Greater damage to infrastructure and transport in Aceh meant that some areas affected by the tsunami remained relatively inaccessible. There was an overall rice surplus compared to demand, but supplies of rice in local markets were variable. A multi-agency assessment in February 2005 noted relatively strong markets on the north coast and in urban areas, but weaker markets on the west coast, where food availability was problematic because supply routes had been destroyed. Traders were hit by increased transport costs and lower demand for rice due to large volumes of food aid, while some

traders had died in the tsunami and others had gone bankrupt. Conversely, consumers benefited from lower prices. The assessment recommended cash and vouchers as an alternative to food aid to stimulate the local economy (Winahyu and Acaye, 2005).

The inflation rate in Aceh after the tsunami was considerably higher than the national average due to the generally strong demand for all products and services arising from the high investment in post-disaster reconstruction. According to the government, inflation in Banda Aceh stood at 41% in 2005, compared to a national average of 17%. Rice prices in Aceh were three to four times higher than normal for several weeks after the tsunami, although they stabilised quickly.

Analytical tools and methods

A number of tools and methods have been developed for analysing markets. Donovan et al. (2005) provide a more detailed overview.

Supply chain analysis: Creti and Jaspars (2006) describes a market analysis tool which focuses on the value chain by which a commodity passes from producer to consumer. It also considers the influence of the market environment and market services on how a product reaches a particular market. WFP's emergency food security assessment handbook recommends preparing a market structure diagram as a first step in understanding how a market normally functions, and what may have changed as a result of the crisis (WFP, 2005).

Market mapping: Mapping techniques may be useful to highlight market constraints in different areas. Identify on a map markets which used to supply the commodities required, infrastructural blockages which have affected the supply chain and new sources of these items, then plot the approximate number of wholesalers and/or retailers in different locations. This will identify whether there are any obvious constraints to the supply of certain commodities. It could be the case, for instance, that there are no retailers in a particular village, suggesting a need to encourage suppliers from farther afield. The market responds to purchasing power, so lack of income might be an important factor inhibiting trade. If traders are made aware of a cash transfer programme, they may be tempted to resume trading.

Market integration analysis: Market integration is an economic term to describe linkages between markets. Supply chains from the main supply areas to demand areas are analysed to see if the marketing margin is high, and how this compares with the costs of trading (transport, profit margin). If the price difference is much higher than the cost of transporting the commodity, the market is segmented and not well integrated (WFP, 2005).

Interviewing traders: Talking to traders is a key part of any market analysis. This should include visits

Deciding where to implement cash

CARE implemented a pilot cash and voucher project as an alternative to food aid on the west coast of Aceh. An assessment involved interviews with households, meetings with local traders and consultations with people about whether they would prefer cash or food in all the places where CARE had been providing food relief. The assessment also asked whether the commodities people needed were available nearby.

For each distribution site, the assessment produced a one to five ranking for the functioning of food markets, transport and safety and security. The cash project was implemented in the two sites where the ranking was highest. The assessment did not consider whether cash transfers could stimulate a market response, but this could be incorporated through interviews with wholesalers to find out what factors were inhibiting them from supplying certain areas (CARE, 2005).

Analysing the brick market in Aceh

The consultancy firm Accenture carried out a supply chain analysis of the brick market in Aceh. The construction boom meant that brick production had been highlighted as a key area of concern because of the risk of inflation, environmental issues around how timber was used in making bricks and the potential market opportunities for local production. According to the study, almost 2.5 billion bricks were needed for reconstruction in Aceh and Nias between 2005 and 2009. This was well within the scope of the local market, which was thought to be capable of supplying some 5bn bricks over the same period. This suggested that the inflation that was observed in brick prices was not caused by a simple supply and demand problem, but by other issues, perhaps including wage or general inflation, transport bottlenecks or the cost of raw materials. The study recommended using concrete blocks as a substitute for bricks, which reduced the use of timber and provided micro-finance to small-scale brick enterprises to enable them to improve the quality of the bricks they were producing (high-quality bricks were in higher demand) and enhance transport links to enable supplies to reach high-demand areas.

Source: UNDP (2006).

Market trader survey (adapted from Donovan et al., 2005)

Basic characteristics and what trading operations are like in a normal year

- How do traders transport goods to market?
- How much competition do they face from other traders?
- What is the normal volume of sales at different times of year, for key goods?
- Who are traders' main customers?
- Do traders borrow money to buy goods and extend credit to customers?
- What are the seasonal trends in the prices of key goods?

Comparison between a normal year and the post-crisis situation in terms of:

- Transport access and costs
- Storage access and costs
- Availability of goods to sell
- Numbers of customers
- Prices of goods
- Availability of credit

traders face in travelling to remote locations and understanding their potential interest in supplying other areas if purchasing power is identified as a constraint and can be addressed. A tool developed by Michigan State University for market assessment includes a trader questionnaire (Donovan et al., 2005: 9).

to key locations, asking wholesalers about their current operations, assessing the constraints

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