Responding to food insecurity and malnutrition in crises

This chapter briefly reviews the changing nature of the humanitarian response to food security and nutrition crises. Major effort has been invested in improving analysis and the range of response options is now much broader than it was only ten years ago. Mortality in acute food security and nutrition crises has been reduced, which is a significant achievement. But less progress has been made in recovery from crises. In the food security sector – as in other sectors of response – the challenges of addressing underlying causes in protracted crises have become more apparent. And new constraints have emerged as well.

The past decade has brought considerable change in the context of food security and nutrition crises. Firstly, after a lengthy period of stability and slowly declining real prices, the cost of food spiked dramatically in 2007–2008. The period since has seen great volatility in food prices, with the price of some basic food commodities as high in early 2011 as they were in 2008 (see Chapter 3).

The price of food is important in explaining humanitarian crises because it is a hazard in its own right: it puts vulnerable populations everywhere at greater risk and allows smaller shocks to push them over the brink of survival. It also makes recovery after crisis much more difficult. Increasing globalization means that price changes are more rapidly transferred to local markets and individual households.

Secondly, other causal factors have changed. While the bulk of crises continue to be in conflict-related and complex emergencies (UN ESC/ECA, 2009), the number of disasters triggered primarily by climatic or environmental factors has increased (see Figure 5.1). This trend is likely to continue as the impact of climate change drives greater volatility in weather-related hazards, contributing to the sharply rising number of natural disasters. Across the board, crises characterized by extreme levels of acute food insecurity and malnutrition are the result of multiple causes – both ‘human-made’ and ‘natural’. The high rates of mortality caused by a widespread scurvy (vitamin C deficiency) epidemic seen in Afghanistan in 2002 are a good illustration. Scurvy is a rare deficiency in stable populations, but a particularly severe winter combined with the ongoing conflict and reduced humanitarian access meant that large numbers of Afghans were cut off from sources of vitamin C (fresh produce and animal products) for very prolonged periods.
Thirdly, crises are increasingly protracted. In 2010, 19 countries in Africa alone reported food security crises in at least eight out of the ten previous years – and in 15 of these countries, for eight or more consecutive years. In 1990, only five countries reported this kind of protracted crisis (and only one of those five – Mozambique – had emerged from protracted crisis). The more protracted or long-lasting a crisis is, the greater the prevalence of food insecurity (FAO and WFP, 2010). In many such contexts, the prevalence of acute malnutrition remains above the levels defined by the World Health Organization (WHO) as signifying a nutritional emergency for years, if not decades (Nielsen et al., 2011).

Lastly, although food security crises remain predominantly a rural phenomenon, there is increasing evidence that the locus of crisis is slowly shifting towards urban areas, as vulnerable populations are forced out of rural livelihoods (Pantuliano et al., 2011).

Box 5.1 Somalia: the changing nature of conflict and the changing humanitarian response

Somalia has been in a state of protracted conflict since the late 1980s. In 1991, the government of Mohamed Siad Barre was overthrown, but no single faction was powerful enough to dominate and the country has not had a working central government since then. At root, the conflict in Somalia has been over resources – particularly land and water. Much of the expression of the conflict has been in terms of clan and identity, which remained tied to local politics in the 1990s. However, since 11 September 2001, and particularly in the past five years, the conflict in Somalia has become politicized on a much more global scale, with an attendant decline in humanitarian access and a worsening humanitarian crisis.

In 1991 and 1992, major conflict in south-central Somalia led to the displacement of civilians and the breakdown of marketing channels. Compounded by back-to-back poor harvests, this resulted in a major famine in 1992. Famine relief efforts were hampered by the conflict and the United Nations (UN) Security Council authorized a peacekeeping mission to Somalia to protect the aid effort. But after UN troops were attacked, the United States (with significant encouragement from some of the humanitarian agencies) intervened to protect aid convoys. The US intervention soon turned into a direct conflict with some of the warlords, culminating in the infamous ‘Black Hawk down’ incident in October 1993, when a number of American soldiers were killed, and the subsequent withdrawal of US forces. After the famine, a second UN effort began in 1994, aimed at national reintegration and economic recovery, but it too met with only limited success.

Northern areas of Somalia formed their own separate governments in Somaliland and Puntland, and these areas attained a degree of stability. But the rest of the country – generally referred to as south-central Somalia – spent the remainder of the 1990s divided into small areas, each dominated by a warlord or local militia. Actual fighting was sporadic and trade among different areas was possible, even if unified government was not. Occasional localized food crises occurred throughout this period, but the major famine of 1992–1993 was not repeated. Two attempts at forming a national government (one in 2000 and another in 2004 – the current Transitional Federal Government or TFG) also failed to unify the country.

Since 2001, the conflict in Somalia has taken a different turn with growing concerns about some of the warlords’ links with jihadist movements. Ethiopia and Eritrea have backed rival factions, jockeying for regional supremacy. In the absence of a strong central security system, there were fears that Somalia could become a haven for groups linked to al-Qaeda. By 2005, the Supreme Council of Islamic Courts Union consolidated control over the capital Mogadishu and by early 2006 controlled much of south-central Somalia. There followed a brief period of calm in areas it controlled. But external concerns over some of the Courts’ international allegiances – and the TFG’s alliance with Ethiopia – led to an invasion by Ethiopia, with the support of the US, in late 2006. The invasion achieved the objective of chasing the Islamic Courts out of the capital, but it also resulted in the most radicalized element of the Courts – al-Shabab (youth) movements – taking over the role of main opposition to the newly reinstalled TFG. Fierce fighting between al-Shabab and its allies on one side and the TFG and their Ethiopian – and eventually African Union (AU) – forces on the other, led to a large-scale flight of people displaced from Mogadishu, most of whom took refuge around Afgooye, just north-west of the city.

Conditions in Afgooye were so bad that it has been dubbed the ‘world’s worst humanitarian crisis’. Fighting throughout 2008 and 2009 eventually led to Ethiopian forces pulling back and handing over to AU forces, which remained to protect the fledgling TFG. Several food aid programmes have operated in south-central Somalia, but food aid has always been a valuable commodity in a resource-constrained environment and has been a source of competition, diversion and manipulation. To prevent losses, food aid transporters were required to pay a deposit equal to the
value of the food in order to ensure its arrival at the intended destination. However, managing and monitoring food aid became increasingly difficult as the security situation deteriorated after 2005. At the same time, the rapidly increasing numbers of internally displaced people – which jumped from 300,000 in 2007 to nearly 1.4 million in 2009 – required more assistance. Fears about the loss or diversion of food aid made donors more wary and access by agencies more difficult.

CARE International, which had been running large-scale food programmes in several areas of south-central Somalia, was forced to pull out in late 2008 because of security threats. A year later, fearing that diverted food aid would fall into the hands of al-Shabab, the United States Agency for International Development (USAID) instructed that none of its aid – food or otherwise – be allowed to go into areas controlled by al-Shabab. Soon after, the World Food Programme also shut down most of its operations in south-central Somalia. These events coincided with one of the best harvests of its operations in south-central Somalia. These events coincided with one of the best harvests in recent history, so for a period of time, the aid pull-out did not have obvious, major humanitarian impacts. But the pull-out also coincided with renewed attempts to bolster the fledgling TFG.

Pressure was put on humanitarian agencies to support this effort by redoubling aid efforts in TFG-controlled areas – with the potential consequence of further polarizing humanitarian aid, making it even more difficult to access al-Shabab–controlled areas.

Inevitably, the impact of the good harvest in 2009–2010 has worn off. Continued displacement and a drought linked to the La Niña phenomenon have worsened the food security situation. The conflict continues and its impact on polarizing aid makes access very difficult for humanitarian agencies. FAO’s Food Security and Nutrition Analysis Unit for Somalia notes that 2.4 million people require food assistance and some of them live in areas that cannot be reached. The drought is worsening the underlying livelihood crisis because pastoralists are losing animals due to the critical shortage of grazing and water and the value of animals is dropping while the price of food is rapidly increasing. The UN’s IRIN news agency quoted Mark Bowden, the UN Humanitarian Coordinator for Somalia, calling on the warring parties to allow humanitarian access to support drought-affected Somalia. “I am extremely concerned about the impact of the current drought on the well-being of children, women and the general population of Somalia,” he said (IRIN, 2010).

For years, food security responses consisted mainly of food aid or seeds-and-tools support to agricultural recovery in farming areas. Much of the food aid was provided in-kind by donors and was often subject to delays in procurement and transoceanic shipment (Barrett and Maxwell, 2005). The interventions that aimed to address malnutrition in emergencies were limited to supplementary feeding programmes, using fortified blended foods that were based on the same commodities that donors were making available for general distribution and to inpatient therapeutic treatment for the most severe cases. The fortified foods were mostly, but not exclusively, a blend of grain and pulse commodities, such as maize–soya blend, with the addition of a vitamin–mineral mix.

For many years, food security and nutrition as a ‘sector’ has been the biggest single category of humanitarian response in crises. But despite this, it is still often accused of being too little, too late – and sometimes inappropriate to the context or the problem (ODI, 2006). This implies a problem of analysis or learning (or both), as well as other constraints.

**Nutrition and food security analysis**

In the past decade, major investments have been made in the analysis of nutrition and food security in crisis. The key motivation behind this has been to become more precise in terms of problem analysis and in making the case for appropriate, timely and efficient action. This has generated change at a number of levels. Broadly, words like ‘starvation’ and ‘hunger’ have been replaced with terms like ‘nutrition’ or ‘food security crisis or emergency’ that better distinguish crises driven more by disease, escalating food prices or loss of income and livelihoods than by traditional environmental shocks or conflict.

Major improvements have been made in the assessments of food security. The Strengthening Emergency Needs Assessment Capacities project of the World Food Programme (WFP) led to significantly improved assessment methodology as well as more consistent and transparent reporting – as, for example, in annual detailed needs assessments in Darfur, Sudan beginning in 2005–2006. The Integrated Phase Classification (IPC) tool, developed by the Food and Agriculture Organization of the United Nations (FAO) and its partners in Somalia, has created the analytical tools and common language to compare different crises, enabling at least the possibility of an impartial response. The push to expand IPC analysis led to the improvement of food security indicators, including such innovations as the food consumption score, based on dietary diversity (WFP, 2009) or the coping strategies index, based on behaviours people rely on when they have inadequate food (Maxwell, Caldwell and Langworthy, 2008).

Nutrition indicators have been used to gauge the severity of crisis for nearly half a century. For many years, however, it was often difficult to understand what the proclamations of extreme levels of, for example, ‘hunger’ or high levels of ‘extreme malnutrition’ actually meant in terms of the number of people affected by different types and severity of undernutrition. This made it difficult to predict needs and design the most appropriate response. In the past decade, the cases of misuse of terms and misrepresentation of nutrition data have declined as both indicators and the assessment methods used to collect nutrition and food security data have become increasingly standardized across the international community.

Ethiopia is a good example of this. Some ten years ago only 9 per cent of 125 nutrition assessments conducted in the country were found to use standard indicators and approaches and to be reliable (Spiegel et al., 2004). Today, Issack Manyama, who heads the Ethiopian Nutrition Coordination Unit (ENCU), says: “There has been a significant improvement in the quality of such assessments.” He went on to explain that last year only two out of 65 reports that he reviewed did not meet the criteria set by his unit for quality and reliability (Interview with Manyama, March 2011).
In the summer of 2010, giant floods devastated parts of Pakistan, affecting more than 20 million people. The flooding started on 22 July in the province of Balochistan, next reaching Khyber Pakhtunkhwa and then flowing down to Punjab, the Pakistan ‘breadbasket’. The floods eventually reached Sindh, where planned evacuations by the government of Pakistan saved millions of people.

However, severe damage to habitat and infrastructure could not be avoided and, by 14 August, the World Bank estimated that crops worth US$ 1 billion had been destroyed, threatening to halve the country’s growth (Batty and Shah, 2010). The floods submerged some 7 million hectares (17 million acres) of Pakistan’s most fertile croplands – in a country where farming is key to the economy. The waters also killed more than 200,000 head of livestock and swept away large quantities of stored commodities that usually fed millions of people throughout the year.

In the immediate aftermath of the floods, malnutrition was identified as one of the key problems and infant feeding practices, for instance, were assessed as having suffered directly from the catastrophe. At the end of August 2010, “approximately 50 per cent of nursing mothers report[ed] [...] that they ha[d] reduced breast feeding and around 15 per cent ha[d] stopped breast feeding since the floods. Women report[ed] that they d[id] not have sufficient privacy to breast feed” (United Nations, 2010).

Six months after the floods, several agencies commented on the issue of malnutrition in Pakistan. “I haven’t seen malnutrition this bad since the worst of the famine in Ethiopia, Darfur and Chad. It’s shockingly bad,” said Karen Allen, deputy head of the UN Children’s Fund (UNICEF) in Pakistan (Walsh, 2011). Yet interestingly, despite such alarming statements, the results of the Flood Affected Nutrition Surveys (FANS) of Sindh and Punjab, conducted in October–November 2010, showed similar global acute malnutrition and severe acute malnutrition (SAM) rates to those of 1991 and 2001 (WHO, 2010), indicating that the floods may not have radically changed the overall malnutrition phenomenon in Pakistan (see Box 2.1 for definitions).

Such apparent contradictory findings raise the question of whether the 2010 floods really were a tipping point into malnutrition for Pakistan, as many suggested.

Undoubtedly there was an increase in disease in the affected provinces due to the sudden and protracted displacement of large numbers of people, so many that neither the Pakistani authorities nor humanitarian organizations could meet people’s basic needs. There was a significant rise in measles and in water-borne diseases, related to a lack of access to drinking water and sanitation (Chamberlain and Shah, 2010). These factors, plus lack of access to a diet with enough micronutrients, suggest the floods, especially shortly after their occurrence, were a strong aggravating cause for SAM, as has also been the case in studies on malnutrition and its aggravating factors (Bradol and Jezequel, 2009; Collins and Yates, 2003).

Despite all of this, approximately two months following the disaster, the FANS statistics did not show a dramatic increase in SAM rates compared to 2001 statistics. On average, Punjab had 4.9 per cent of SAM in 2001 and 3.5 per cent in 2010, while Sindh had 9.7 per cent of SAM in 2001 (and 3.7 per cent in 1991) and 6.1 per cent in 2010 (WHO, 2010; Punjab Department of Health, 2011; Sindh Department of Health, 2011).

It seems, therefore, that even if the floods might have impacted the overall issue of severe acute malnutrition in the weeks following the disaster, they did not increase it in the long term from a public health viewpoint. The reason why famine was raised in the media could be perceived as mostly opportunistic, explained Zulfiqar Ahmed Bhutta, a professor in paediatrics at the Aga Khan University in Karachi. “There is no acute famine in Pakistan and much of the so-called ‘global acute malnutrition’ uncovered by the floods represents long-standing undernutrition and stunting among the poorest of the poor,” he said. “Many international agencies and relief organizations are focusing largely on distribution of nutrition commodities rather than addressing more labour-intensive activities underlying issues of maternal undernutrition and poor infant and young child feeding strategies. It is easier to demonstrate a high ‘burn rate’ of relief funds by importing expensive nutrition commodities than the laborious process of influencing behaviour change through community mobilization and support.”

Most analysts agree that malnutrition is mainly a chronic phenomenon in Pakistan. It has been a major health issue for years, but substantial state investments have not been made to tackle the problem, as only around 2 per cent (WHO, 2009) of Pakistan’s gross domestic product is spent on public health. According to Bhutta, “Very little research in India or Pakistan linked to the countries’ public health needs and policies [...] the Aga Khan University has been the leader in much public health research, but not much gets linked to national programmes (Srinivasan and Bhutta, 2011).”

However due to the floods, several nutrition surveys were implemented at the end of 2010 by provincial departments of health in partnership with UN agencies and NGOs (Sindh Department of Health, 2011; Punjab Department of Health, 2011), and a national survey whose data will be comparable with the one carried out in 2001, is due mid-2011.

As stunting is measured by height/age data, it was too early two months after the floods to measure their direct impact. It is, however, interesting to note that between 2001 and 2010 the levels of stunting among young children increased from 37.6 per cent to 50 per cent in Punjab and from 48 per cent to 51.8 per cent in Sindh (WHO, 2010; Sindh Department of Health, 2011; Punjab Department of Health, 2011). Among the main structural causes of stunting are the lack of access to enough nutritious food, to enough clean water and to health facilities. All have been described as problematic in the aftermath of the catastrophe, so there is a strong possibility that the floods will be an aggravating factor for stunting in the long term.

Provincial response plans in Pakistan to the problem of malnutrition have been formulated from the results of the surveys and advocates of “the delivery of an integrated response package consisting of life saving intervention [community management of acute malnutrition] linked to essential health services and the interventions promoting better nutrition and preventing malnutrition through appropriate infant and young child feeding practices, promotion, micronutrient supplementation, deworming, quality water and sanitation services, food security intervention on the minimum” (Pakistan Nutrition Cluster, 2011). Whether this response can realistically be implemented over the 18-month timeframe scheduled remains unknown, especially as federal and

Box 5.2 The Pakistan floods: chronic malnutrition exposed
These improvements have largely come about due to the efforts of WHO, projects such as Sphere (see below) and the recent Standardized Monitoring and Assessment of Relief and Transitions project, the nutrition cluster (see below) and the efforts of national bodies like ENCU in Ethiopia. All of these have promoted the use of standardized approaches in national-level training sessions and in widely available tools and guidelines.

While the standardization of nutrition and food security assessment in emergencies is resulting in more reliable data, challenges remain with interpreting the data and with reaching valid conclusions for decision-making about response. A decade ago, WHO set a level of acute malnutrition in a population (10–15 per cent) that should define an emergency and the need for response (WHO et al., 2000). It is difficult, however, to truly understand the nature of the nutritional risk and therefore the level of resources and most appropriate response required without interpreting these numbers within a context. This is what more recent frameworks attempt to do. The IPC tool, for example, includes a strategic response framework and calls for a specific step of ‘response analysis’ – that is, identifying possible response options to an assessed food insecurity or nutrition problem and then selecting the response that best addresses the need while minimizing potential unintended or negative side effects. Particular tools have been developed that are specific to a given food security programme choice: food aid or cash, for example, in an acute food access crisis (Barrett et al., 2009).

Thus the demands on analysis have grown more complex. Assessment of need has improved significantly, but needs assessment alone is no longer sufficient. The criteria for interpreting assessments have become clearer and include not only the validity and reliability of results (i.e., how accurate and reproducible the results are), but also the timelines, comparability and programme-relevance of the results. Still, the extent to which improved approaches are actually used is limited. But when these improved tools and approaches are used, questions remain about the extent to which donor flexibility and resource availability, time constraints and simple organizational inertia has limited the ability for improved analysis to inform programmatic response choices.

**Food security and nutrition responses**

Numerous efforts have been made over the past half-decade to improve the range of programmatic response options to address food security and nutrition crises. In comparison with just a few years ago, there are numerous options to choose from today. Most of these new response options were summarized by Maxwell et al. (2008) and can be classified into three categories: responses that deal specifically with the symptoms of acute food insecurity (and which attempt to prevent malnutrition); those that deal specifically with malnutrition; and livelihoods interventions that attempt to reduce or prevent food insecurity and malnutrition.

**Responses that deal with the symptoms of acute food insecurity:** While it has been argued that "preventing malnutrition through general or targeted [in-kind] food distributions… is the *sine qua non* aim of nutrition and food security interventions in crisis" (Checchi et al., 2007), increasingly there is a much broader range of interventions than just in-kind food aid to meet people’s short-term food needs. The most obvious change is the much greater use of cash transfers (direct and conditional transfers, vouchers, etc.) instead of, or in addition to, in-kind food aid distribution. Providing cash transfers to acutely food insecure populations not only increases the speed of delivery of aid (cash does not have to be shipped across an ocean), but it also allows affected populations to prioritize actual assistance according to their own needs. For years, it was observed that disaster-affected recipients sold a proportion of food aid, in large part because it was the only form of assistance they got, but they had needs other than just food consumption. However, the evidence is that most of cash transfers are spent on immediate needs (Harvey, 2007).

The second change is greater reliance on local and regional purchase of food aid, which has in some extent offset the heavy reliance on in-kind food aid shipped from donor countries. Despite the revolution in cash-transfer programming, there are times when in-kind food is still the preferred response – particularly when market disruptions or inefficiencies would cause cash transfers to lead to significant local food price inflation. But local and regional purchase of food is generally a more cost-efficient and timely way of getting food to affected populations (Barrett and Maxwell, 2005; GAO, 2009). Whereas a decade ago, local and regional purchase of food aid accounted for only about 13 per cent of total global food aid flows, it was almost half of the total in 2009 (WFP, 2010).

**Responses that deal specifically with malnutrition:** Until quite recently, treatment of severe acute malnutrition in emergencies was restricted to inpatient management in therapeutic feeding centres or hospital units. This approach could rarely treat all those in need of care and ignored the many barriers to accessing treatment that exist for poor people in the developing world (see Chapter 2 and Collins, 2001). As a result, such programmes were associated with poor coverage, late presentation of individuals with severe malnutrition and little overall impact on mortality.

New approaches, now known as community-based management of severe acute malnutrition (CMAM), focus on improving coverage and on finding and treating SAM early in the progression of the condition. To achieve this, treatment services are located close to where the target population lives and, where possible, provided as outpatient.
treatment in the form of ready-to-use therapeutic food (see Chapter 2). Good-quality programmes also ensure that target communities understand the services available to them and participate in the design and implementation of programmes.

Evidence published since 2000 has shown that, by reducing barriers to access and supporting earlier presentation, large numbers of children with severe acute malnutrition (often more than 85 per cent of all cases) can be treated successfully as outpatients without ever being admitted to inpatient units (Collins et al., 2006). By 2007, CMAM had been formally ratified by the international community as the most appropriate strategy for the treatment of SAM in emergencies and beyond (WHO et al., 2007). This relatively rapid change in practice and policy in emergencies (see Box 5.3) has led the way for the same change in longer-term programming and the CMAM intervention is now being integrated into the national policy and guidelines of many countries (Ethiopia, Nigeria and Pakistan are just three examples) with a high burden of acute malnutrition.

Box 5.3 Changing policy on the treatment of severe acute malnutrition

From 1999 to 2000, Ethiopia once again suffered a wide-scale humanitarian crisis. After three consecutive years of drought, rates of acute malnutrition in many regions in the country rose and exceeded emergency thresholds. In one of these regions, Concern Worldwide, an Irish NGO, established a network of decentralized supplementary feeding programmes in order to treat the large numbers of children who needed care.

It soon became obvious that many of these children were suffering from severe acute malnutrition and needed more than the ration of fortified flour being provided. Despite the one district hospital’s limited capacity to care for these children and considerable opposition from local administration to setting up new ‘therapeutic feeding centres’ run in parallel, the first community-based therapeutic care programme was implemented. All the children with severe acute malnutrition were given a ration of ready-to-use therapeutic food as a take-home treatment. The programme was carefully monitored and the results — very high recovery rates and low mortality rates — surprised the international nutrition community which had assumed the only place to treat severe acute malnutrition successfully during emergencies was in inpatient centres.

The programme’s success encouraged Concern and other agencies to replicate the approach in other countries where crisis dictated the need for an innovative programme to address very high levels of SAM among large numbers of children. From south Sudan to Darfur and Malawi to Ethiopia, results from similar programmes were documented. Such reports became an important mechanism for demonstrating effectiveness.

Wide and timely dissemination of results through international research meetings, UN and INGO presentations plus a variety of peer-reviewed and practitioner journals encouraged ongoing debate and opinion on the approach. Other organizations were encouraged to adopt the treatment model when they were ready and thus to add to the effectiveness data available. It took six years from establishing the first community therapeutic care programme in Ethiopia in September 2000 to the release of the UN joint statement supporting CMAM at the beginning of 2007 — rapid progress for international policy change. It was achieved by exploiting the opportunities for innovation presented by crisis, without the need for expensive and complicated research designs such as randomized control trials.

This significant change in treating SAM has meant the difference between life and death for children like 9-month-old Shoma, living in a chronically vulnerable, cyclone-affected area of southern Bangladesh. After a long episode of diarrhoea, Shoma became very thin but her parents could not afford to seek treatment for her at the district hospital. Also, local people felt the hospital provided poor-quality care. Her mother preferred to use traditional medicine — amulets thought to provide protection from infection and ward off evil spirits. Shoma’s luck changed for the better with the arrival of a CMAM programme, supported by the Bangladesh Institute of Public Health Nutrition and based on results from African programmes.

After seven weeks, she had gained 2kg in weight and is today a healthy little girl. The community health worker who treated her feels empowered by the effects of the programme: “I am very happy to have this programme. We can treat the SAM children. Before this we had no idea. We used to go to the health assistant but he also had no proper idea. We all thought it was a strange disease. No knowledge. No prevention. No treatment. Now we prevent SAM and now we treat SAM” (interview with a community health worker, Burhanaddin, Bangladesh, October 2010).

Therapeutic care of severe acute malnutrition is often essential to save lives in emergencies. But many contemporary crises have been going on for years. There is now a realization, particularly in protracted crises, that more attention to treating less severe cases of malnutrition, addressing micronutrient deficiency diseases and preventing undernutrition is key to reducing mortality risks. Here the record of success is less well documented, but it is the focus of much of the debate and attention of the ‘nutrition in emergencies’ sector today.

Supplementary feeding programmes, which typically deliver a dry take-home ration of fortified blended flour, oil and sugar to nutritionally vulnerable groups, have been a standard response strategy in nutritional crises since the 1970s. Yet doubts about their impact have been raised repeatedly for more than 25 years. Much of the attention today focuses on the effectiveness of the food supplement itself, with some recent studies and programmes suggesting that the use of new, ready-to-use, therapeutic food-like commodities might improve recovery rates in these programmes (Matilsky et al., 2009). These ‘new’ foods (often broadly referred to as ‘ready-to-use foods’) have now crossed over into the realm of ‘prevention’ of malnutrition (a much debated issue that is covered in Chapter 2) and into interventions that aim specifically to control micronutrient deficiency diseases, such as vitamin B deficiencies and vitamin C deficiency which are of particular risk in populations affected by emergencies.
Recently, the replacement or ‘enhancement’ of nutrients has also gained prominence in the food aid arena as donors and agencies have acknowledged the importance of not simply delivering food, but supplying foods that can explicitly contribute to a nutrition agenda (Food Aid Quality Review, 2011). The prevention of micronutrient deficiencies and their control in crisis is of special concern to international agencies such as WFP. They have signed up to policy and standards that specifically state the need to ensure access to all the nutrients (not just energy) required for health. Again, the use of the new ‘ready-to-use’ foods seems to be rising up the agenda – for example, it has recently been suggested that a small dose of one of these foods be added to the general ration food basket to help meet the nutritional (particularly micronutrient) requirements of vulnerable groups such as young children (Chaparro and Dewey, 2010).

But it is important that these ‘technologized’ solutions remain one tool among many in the ‘toolbox’ of interventions and strategies for addressing malnutrition in crisis. Other commodities (such as improved fortified blended flours and nutrient-dense foods) and alternative programme designs (such as the cash and vouchers described above) will remain valid choices where the context is right and the evidence says that they work. In addition, the use of such foods should not override all the important work to date on the causal analysis of malnutrition – i.e., that the health environment (to treat and prevent disease) and caring practice (such as infant feeding) are equally important to ensure that malnutrition in crisis is addressed.

While it was the development of ready-to-use therapeutic food that made the safe treatment of severely malnourished patients at home feasible, it is the design of CMAM programmes more generally, i.e., how populations are supported to access the right care and treatment, which ultimately ensures programme success. This is an important issue to keep in mind as we debate new approaches and design new interventions for tackling undernutrition in crisis and beyond.

Responses that deal with supporting underlying livelihoods: There is now a broader perspective on food security and nutrition responses that takes into much greater account support to livelihoods, rather than a narrower focus only on direct food assistance or feeding programmes. Cash transfers not only support direct consumption, they can also be a source of livelihood support, depending on objectives and usage. Food transfers can support people’s livelihoods by freeing up household resources for other uses and by protecting against the distress sales of assets.

Programmes aimed at bolstering agricultural production to support food security in crises have long been incorporated into humanitarian response (Longley et al., 2006). WFP’s Purchase for Progress programme procures food aid locally, which supports smallholder production and marketing. Tools have recently been developed for market responses to food insecurity (Albu, 2010), for livestock-specific responses (LEGS, 2010) and for approaches based on microfinance services that are broadly applicable across different livelihood systems.

Of perhaps greater importance is understanding the way in which livelihood systems themselves are adapting to deal with the changing nature of crisis – in other words, not the international institutional response to food insecurity, but the complex series of local adaptation to changing risks and changing opportunities. Once captured by the notion of ‘coping strategies’, this agenda is now much more about understanding the nature of livelihood change over time and particularly about what can be done to support changes that make at-risk populations more resilient and better able to manage multiple hazards without undermining their own natural resource base or livelihood system. Much of this falls under the rubric of disaster risk reduction and adaptation to climate change (Thomalla et al., 2006), but there are similar efforts to strengthen livelihood resilience in conflict situations (Alinovi et al., 2008).

The impact of programmes

Impact has to be measured at several levels: firstly, the way in which these changes in response have manifested themselves in terms of the allocation of resources and, secondly, their impact on reducing food insecurity and malnutrition on the ground. There are isolated cases where this has been widely documented and has led to reallocation Somali pastoralists at a water point near Wajid. © Dan Maxwell
of resources and policy change (CMAM being the obvious example here), but surprisingly little of this has been aggregated to tell an overall story.

Roughly three-quarters of all food aid is now for humanitarian response. But tracking the aggregate budgets for these other categories of response is difficult. The 2010 CAP (Consolidated Appeals Process) appeal summarizes totals by sector or cluster at the country level, but the clusters are not the same across countries. Globally, cash transfers and livelihoods responses are not accounted in the same way that food aid is. Cash responses made up only a small, but growing, proportion of WFP’s total 2009 programme expenditure (WFP, 2010). Other agencies have been emphasizing cash responses as well. While cash transfers have received the attention, it is not clear that this mode of programming has come to represent an equally large share of the response. Livelihoods and multi-sectoral programmes constitute a larger share of budgets today than five years ago, but are equally difficult to track across different responses in different countries. In aggregate budgets by agency, WFP still dominates the CAP appeal – with more than one-third of the total being devoted to WFP’s budget. However, as noted, this is no longer exclusively food aid; and more than half of the food aid budget is in the form of cash for local and regional purchase.

Major effort has gone into impact assessment of food security and nutrition interventions on the ground. Many tools have been developed to assess impact – the Sphere Project’s ‘key indicators’ and the ‘Household Hunger Scale’, recently developed by the Food and Nutrition Technical Assistance project and USAID, are two examples of this. There is considerable evidence that, at the project level, more and more programmes are being evaluated. However, according to a paper in *The Lancet*, “There is little published information on the effect of humanitarian response on nutrition outcomes or, more specifically, on the effect of nutrition interventions in emergencies” (Morris et al., 2008). Likewise, despite improvements in monitoring and evaluation, there has yet to be a sector-wide review of the impact of programmes.

Instead, overall impact has to be found in figures on changes in the overall prevalence of malnutrition or overall numbers of the food insecure. However, these numbers often paint a mixed picture, even in the short term. Mortality has clearly declined in most crises (though the Democratic Republic of the Congo is one major crisis that defies this trend). But beyond this, the number of people caught in protracted crises is increasing; this means that gains in controlling acute food insecurity and wasting defies this trend). But beyond this, the number of people caught in protracted crises is increasing; this means that gains in controlling acute food insecurity and wasting are being evaluated. However, according to a paper in *The Lancet*, “There is little published information on the effect of humanitarian response on nutrition outcomes or, more specifically, on the effect of nutrition interventions in emergencies” (Morris et al., 2008). Likewise, despite improvements in monitoring and evaluation, there has yet to be a sector-wide review of the impact of programmes.

Additional data requirements for assessing food security and nutrition interventions relate to cost-effectiveness. Again, according to Morris et al. (2008), “What is often lacking is a clear analysis of the cost-effectiveness of different interventions to enable recommendations to be made on the optimum ration composition, targeting and exit criteria, and the appropriate mix of complementary activities to improve health and nutrition outcomes.” The high price tag linked to the use of the new ready-to-use foods has helped to push the neglected issue of cost-effectiveness almost to the top of the international nutrition agenda (Webb, 2010).

**Constraints and opportunities**

A number of factors either constrain or enable further improvements in addressing food insecurity and malnutrition in crises. This includes changed donor practices, coordination and accountability mechanisms, information constraints and changes in the operating contexts.

**Donor practices in food security response:** Since the mid-2000s, several donor practices have come up for review. A major reform came about when many donor countries untied their entire contribution of assistance in food aid from source markets within their countries. This enabled much greater use of local and regional purchase. Others, including the United States – the largest single donor – have untied aid only to a limited extent, but nevertheless now have some experience with cash transfers and local purchase of food aid to draw from in future operations. Real-time evaluations to learn from ongoing programmes are increasingly a practice of donors and implementing agencies. A recent review of the United Kingdom’s Department for International Development programmes stresses greater preparedness and anticipation of crises, increased innovation and accountability and, above all, more capable leadership in humanitarian organizations – certainly all important elements of response to food security crises as well (DFID, 2011).

Other practices have been less positive. Contracting processes and compliance issues have become increasingly complex. The time required to comply with donor regulations regarding both security concerns and demands for greater financial accountability to taxpayers has come to constitute a significant constraint on learning from or even just implementing programmes (Natsios, 2010). While this affects much of aid programming generally, it is particularly a problem where rapid responses are concerned. Anecdotally, one NGO country director recently recounted having to go back over five years of personnel records to account for staff time allocations to different donors – during a major food security crisis and response that was being funded by the same donors (interview, July 2009).

The decade of the 2000s saw the increasing ‘securitization of aid’ – meaning that assistance was explicitly tied to donor objectives related to political and security criteria in addition to, or even instead of, hunger and poverty criteria or objectives. National governments have also become more adept at manipulating aid to serve political ends. In
The end of the 1990s saw a professionalization of the humanitarian sector, in primarily responsive terms, on the part of the smaller agencies. This translates into shortfalls in the provision of assistance and the treatment of needs and impact assessments (UN, 2005). Importantly, it reasserts the rights of emergency-affected populations to life with dignity.

The resulting consensus benchmarks for assessing the need for action in each technical sector and for measuring effectiveness of action thus established a mechanism for better transparency and accountability. As a result, ‘results-based monitoring’ is increasingly reflected in donor and agency policies and guidelines. Efforts to improve accountability have been the hallmark of humanitarian programming of nearly every sector, including accountability to donors, but especially to recipients. This accountability and commitment to nutrition and food security is also reflected in important agency policy such as UNICEF’s recently revised Core Commitments for Children in Humanitarian Action (UNICEF, 2010) which refers to their commitment to facilitate coordination mechanisms, rapid assessments, the provision of vitamin A, improved infant and young child feeding and treatment for severe acute malnutrition. Similarly, WFP has reaffirmed the role of nutrition within their food assistance responses, including fortifying food to address micronutrient deficiencies.

Although discussion around the need for improved coordination and more harmonized humanitarian action on the ground also began in the 1990s, it was not until 2005 that a new impetus for humanitarian reform was put in motion. A high-level humanitarian response review was initiated to better understand the response capabilities of the UN, the Red Cross Red Crescent Movement, the International Organization for Migration and NGOs. The review’s report recommended further strengthening operational coordination, increasing predictability in the level and effective disbursement of needed resources, and strengthening needs and impact assessments (UN, 2005). Importantly, it also argued that “the information presented on nutrition... reveals an unclear mix of capacity and a lack of clearly defined approaches to the utilization of the established service resources. This translates into shortfalls in the provision of assistance and the treatment of the sector, in primarily responsive terms, on the part of the smaller agencies.”

Coordination and accountability: The end of the 1990s saw a professionalization of humanitarian action marked primarily by the launch of the IFRC- and NGO-led Sphere Project’s Humanitarian Charter and Minimum Standards in Disaster Relief (Sphere Project, 2011). This important inter-agency initiative mobilized the international community to develop a set of minimum standards and related key indicators for different sectors including food security, nutrition and food aid. The cornerstone of the project is the Humanitarian Charter, which, based on the principles and provisions of international humanitarian law, reasserts the rights of emergency-affected populations to life with dignity.

In 2010 a new global food security cluster was launched. Previously, there were national teams in some countries that functionally played the role of a food security cluster. However, these had very mixed mandates (some on food and nutrition, some on food and agriculture, some on livelihoods, etc.) and were led by different agencies and mandates. The global food security cluster functions at a technical level. At a more political level, the Committee on Food Security has recently been reformulated and strengthened. One of its first areas of investigation was protracted crises and consideration of food security response in such crises – some of which have now lasted 30 years or longer (FAO and WFP, 2010).

Short-term responses in long-term, protracted crises: Protracted crises are defined in terms of both duration and magnitude – some have lasted as long as 30 years and are characterized by extreme levels of food insecurity. They are caused by multiple factors including conflict, but also climatic, environmental, economic or governance factors – indeed, they often occur in ‘fragile states’, where governance (or more specifically its absence) is a constraint to both prevention and response.

In terms of food security outcomes, FAO and WFP (2010) report 22 countries in protracted crisis in 2010, with a combined population of some 450 million people. Of this, 160 million were undernourished in 2005–2007 or almost one-sixth of the total global number of food insecure people. Further research has shown that the longer the crisis, the worse the prevalence of food insecurity (FAO and WFP, 2010).

While some of these crises attract considerable funding, donors are often reluctant to make significant investments in recovery. Private sector actors are also reluctant to invest or are limited to informal or illegal economic activities. Response in protracted crises often falls to humanitarian agencies. But the constraints to working in protracted crises can be significant. Much of the international apparatus for food security and
The lack of progress towards more equitable development and more sustainable livelihoods for the most vulnerable groups is the big obstacle to overcome. Since the 2009 G8 summit in Italy, there has been a growing consensus on the need to significantly increase international assistance to address hunger and food security issues globally — reflected in the G20 meetings in 2010, for example. This is a much-welcomed response to a problem that has been largely neglected for a number of years. But while there is mention of ongoing food security crises, the main objective of recent initiatives, such as the US Feed the Future programme, is on agricultural technology and marketing to address production constraints and improve food availability. While a comprehensive strategy for addressing hunger has to take into account the issues of production and food availability, it also must address the short-term (and, increasingly, longer-term) crises of food access.

So far, these two goals of an overarching strategy to reduce food insecurity and malnutrition still seem to be separated by a deep gulf. Of 22 countries noted by FAO and WFP in 2010 as being in protracted crisis, only six are on the list of countries (20 in total) targeted by the Feed the Future programme — the US’s flagship food security and agriculture initiative. The implication is that, for the time being at least, humanitarian aid or other short-term forms of assistance will have to suffice as the major response to food insecurity in countries in protracted crisis. Until governments, donors, humanitarian agencies and civil society agree to link humanitarian response in crises to the efforts to address the more underlying technological, environmental and institutional constraints to sustainable food security — and financial commitment is secured to make this work — food insecurity and malnutrition in crises are likely to remain a problem. Developing this consensus — and creating the appropriate strategy to address both the symptoms and the causes of food insecurity — remains a pressing challenge.

Chapter 5 was written by Dan Maxwell, Associate Professor and Research Director for Food Security and Complex Emergencies, Feinstein International Center, Tufts University, USA, and Kate Sadler, Assistant Professor and Senior Researcher, Public Nutrition in Emergencies, Feinstein International Center, Tufts University. Dan Maxwell also wrote Box 5.1 and Kate Sadler wrote Box 5.3. Marion Péchayre, who wrote Box 5.2, is an independent consultant and PhD candidate at the School of Oriental and African Studies, London.

Summary: the way forward

Although fewer people are dying in crises as a result of food insecurity and malnutrition, the responses of humanitarian emergencies have not improved as much as might be expected. A full assessment of progress is overdue for the sector as a whole.

The lack of progress towards more equitable development and more sustainable livelihoods for the most vulnerable groups is the big obstacle to overcome. Since the 2009 G8 summit in Italy, there has been a growing consensus on the need to significantly increase international assistance to address hunger and food security issues globally — reflected in the G20 meetings in 2010, for example. This is a much-welcomed response to a problem that has been largely neglected for a number of years. But while there is mention of ongoing food security crises, the main objective of recent initiatives, such as the US Feed the Future programme, is on agricultural technology and marketing to address production constraints and improve food availability. While a comprehensive strategy for addressing hunger has to take into account the issues of production and food availability, it also must address the short-term (and, increasingly, longer-term) crises of food access.

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**Sources and further information**


