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# Nutrition and food security response analysis in emergency contexts

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Humanitarian Aid

Rates of undernutrition remain persistently high, with devastating consequences for individuals and entire societies. According to UNICEF, about 195 million children, or a third of children below five years of age in low- and middle-income countries, are stunted, and 75 million suffer from wasting.<sup>1</sup> Undernutrition is implicated in the death of over 3 million under-fives every year. It impairs physical and cognitive development, resulting in lower economic potential for individuals and societies and contributing to the perpetuation of poverty. Estimates of the economic cost of undernutrition range from 2% to 8% of GDP.<sup>2</sup>

It is widely acknowledged that reducing undernutrition requires addressing its causes and therefore the involvement of several sectors. For instance, the 2008 Lancet Series on Child and Maternal Undernutrition estimated that the implementation of traditional nutrition interventions with proven effectiveness could reduce the prevalence of stunting at 36 months by about one-third in the 36 worst-affected countries.<sup>3</sup> This raises two questions. First, why is it not happening? This is a question for those responsible for ‘traditional nutrition interventions’, or what is sometimes termed ‘the nutrition sector’. This paper does not focus on this part of the problem.

The second question is posed to a wider audience. If ‘traditional nutrition interventions’ can only tackle part of undernutrition, what about the rest? The solution must come from other sectors such as livelihoods/food security, social protection, water/sanitation, governance and health. Why is it, then, that those sectors that are responsible for addressing a substantial part of the problem are so little engaged with nutrition? This is particularly striking for the ‘food security sector’ given that the universally accepted

1 UNICEF, *Tracking Progress on Child and Maternal Nutrition*, 2009.  
 2 S. Horton and J. Ross, ‘The Economics of Iron Deficiency’, *Food Policy*, 28, 2003; World Bank, *Repositioning Nutrition as Central to Development – A Strategy for Large-Scale Action*, 2006.  
 3 For instance promotion of breastfeeding, treatment of severe acute malnutrition and micronutrient supplementation.

definition of food security is ‘when all people, at all times, have physical and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life’. This appears to make the achievement of universal good nutrition the defining characteristic of food security. Nevertheless, although some food security interventions make a contribution to nutritional well-being, the sector as a whole does not make nutrition an objective (see below). Moreover, we often do not know which ‘food security interventions’ have most impact on nutrition in different circumstances.

This situation should strike us as strange. How then did it arise? We believe that part of the problem lies in the processes behind response analysis – and, we will suggest, part of the solution could also come from a change in the way in which we do response analysis.

### Response analysis: what is it?

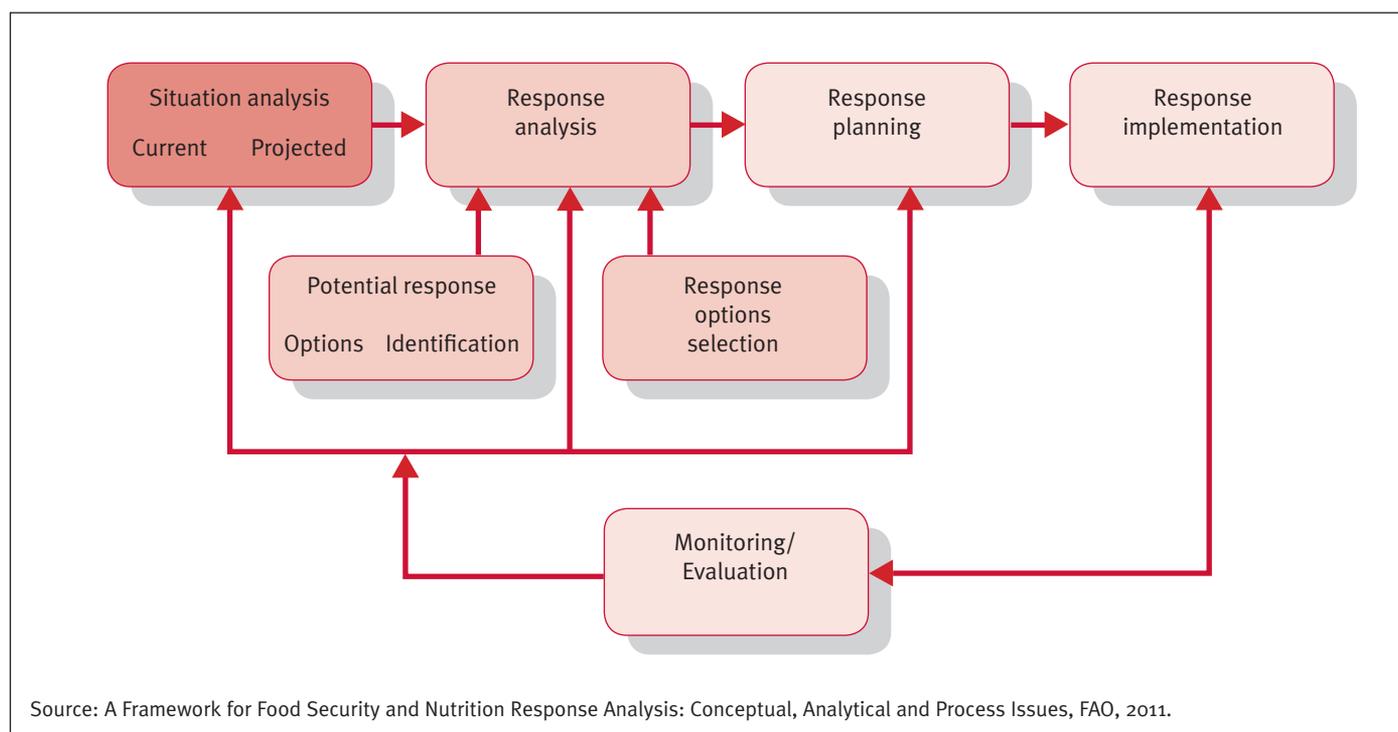
Response analysis means deciding what to do – and making sure you’ve got it right. The framework being proposed by FAO is shown in Figure 1, where ‘response analysis’ is defined as the stages covered by the three boxes shaded red.

The difficulties the food security sector has had in engaging with nutritional issues suggest that the causes of the problem begin even before the ‘response analysis’ itself starts. There are four key steps essential for response decision-making; these occur during the situational assessment, response analysis and monitoring/evaluation ‘boxes’ in the proposed Response Analysis Framework (RAF).

#### Situational analysis

1. Having a conceptual or analytical framework. This provides the questions to ask, and a way of organising the evidence about a problem.

**Figure 1: Conceptual overview of Response Analysis**



Source: A Framework for Food Security and Nutrition Response Analysis: Conceptual, Analytical and Process Issues, FAO, 2011.

- Finding out what the problem is (levels, trends, nature, worst-affected groups) and analysing its causes.

*Response analysis*

- Deciding on an appropriate response, based on the problem analysis. This involves an understanding of local experience and resources, opportunities and what is already being done. It includes deciding on the mix of short- and long- term interventions and which level of causes to address, and running through the proposed response(s) to see if it (they) will work. Various ‘lenses’ or tests should be used, including cost-efficiency, technical feasibility, ‘political’ feasibility, capacity issues and cultural/sociological acceptance.

*Monitoring/evaluation*

- Establishing the correct monitoring and evaluation system to see if the response is working.

Each of these steps is an opportunity for food security to engage with its mandate to look at nutrition – or a missed opportunity, where sectors define themselves and their roles in ways that leave nutritional problems unaddressed.

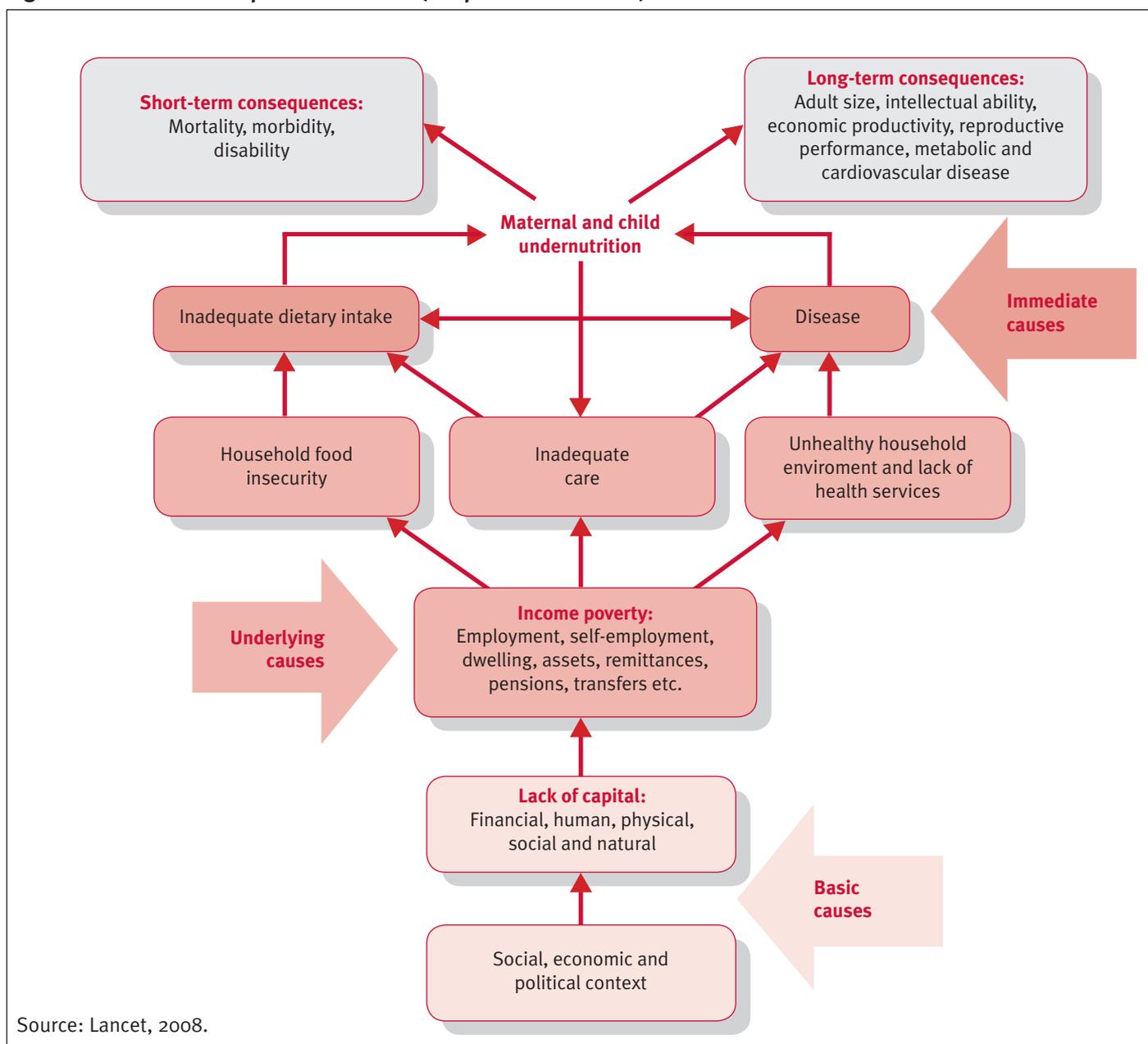
**The problem with nutrition and food security?**

*Step 1: Having a conceptual or analytical framework*

Food security and nutrition tend to use different conceptual frameworks. The food security definition introduces four main dimensions – availability, access, utilisation and stability. Food utilisation is often seen as the ‘nutrition dimension’, making nutrition a (small) component of food security. For nutrition, the well-known UNICEF Conceptual Framework and its adaptations (see Figure 2 for the *Lancet* version) is the standard. It makes household access to food a component of nutrition.<sup>4</sup>

<sup>4</sup> These differences were debated in the FAO Food Security and Nutrition Forum Discussion 34; see [http://km.fao.org/fileadmin/user\\_upload/fsn/docs/SUMMARY\\_FSN\\_difference\\_\\_\\_problem.pdf](http://km.fao.org/fileadmin/user_upload/fsn/docs/SUMMARY_FSN_difference___problem.pdf).

**Figure 2: Nutrition conceptual framework (adapted from UNICEF)**



Source: Lancet, 2008.

The use of different frameworks complicates the inter-sectoral collaboration required to address undernutrition.<sup>5</sup> It can also prevent a clear allocation of responsibilities and contributes to the ‘everybody’s business, nobody’s responsibility’ syndrome often encountered in nutrition. Nevertheless, both ‘sectors’ have frameworks that recognise the role of the other and they are not incompatible. There has been an attempt to reconcile the two in one framework (FAO/FIVIMS).<sup>6</sup> This provides a detailed breakdown of the food factors. It is less comprehensive on the broader economic/income and health determinants.

### *Step 2: Finding out what the problem is and analysing its causes*

Although food security actors should be interested in understanding undernutrition better – and in particular the links to food insecurity at community, household and individual level – they often assume that ‘understanding undernutrition’ means undertaking an anthropometric (often referred to as ‘cluster’) survey. These surveys are costly, and require specialised skills usually beyond the technical capacity of food security actors. They therefore leave any analysis of undernutrition to ‘the nutrition sector’.

Anthropometric surveys provide information about the nature and levels of undernutrition (e.g. prevalence of ‘GAM’ (Global Acute Malnutrition) and ‘SAM’ (Severe Acute Malnutrition)). It is sometimes difficult to get any emergency response without one and yet these surveys rarely tell us about the causes of undernutrition – i.e. they do not shed light on what responses are needed to address the causes of the problem. In practice, the evidence to assign different possible determinants of undernutrition is rarely looked for. It is almost as if the UNICEF conceptual framework is used for programming as an *actual* causal chain for every situation. As a result, the nutrition sector tends to concentrate on its ‘usual business’ (see below), while the food security sector does not get involved in trying to understand undernutrition. Food security actors do not appreciate how much we could learn about undernutrition by investigating diets – which is very much within the remit and the capacity of the food security sector. Moreover, even though household food insecurity is often a determinant of undernutrition, ‘food security analysis’ is rarely linked to undernutrition and so cannot contribute to ‘nutrition programming’ – i.e. interventions designed to reduce undernutrition.

### *Step 3: Deciding on an appropriate response*

Obviously, if step 2 (problem analysis) is not done adequately, then the decision on an appropriate response cannot be taken in the most appropriate way. Nutrition is often seen as a stand-alone sector in emergencies, narrowly focused on three main themes:

- behaviour change (maternal education/sensitisation including on infant and child feeding in emergencies);
- management of acute malnutrition (such as treatment of severe acute malnutrition and supplementary feeding, triggered by anthropometric surveys); and
- the reduction of some micro (and macro)nutrient deficiencies (e.g. supplementation, support to vegetable gardening).

5 Even the terms used are confusing. FAO talks about undernourishment, which is purely a theoretical calculation of calories at population level derived from the FAO food balance sheet. Nutritionists talk about undernutrition – which includes growth faltering from conception onwards (e.g. wasting) and deficiencies of essential micronutrients, and is measured by surveys such as anthropometric surveys.

6 See <http://www.fivims.org>.

Such a ‘sector-based’ approach isolates nutrition from sectors highly relevant to the reduction of undernutrition.

The food security sector often chooses to limit its own responsibility for nutrition in step 2 (problem analysis). As a result, it does not programme adequately for nutrition as an outcome, for two related reasons. First, it rarely incorporates nutrition as an explicit objective.<sup>7</sup> Second, even if it did, it has no way of taking the key steps, outlined in the draft Response Analysis Framework, that are needed for appropriate and effective programming to reduce undernutrition. This would necessitate maintaining a ‘nutritional lens’ throughout the stages of response analysis – i.e. conducting a problem and vulnerability analysis of undernutrition (and targeting food security programmes by vulnerability to undernutrition), scenario-building around undernutrition, formulating appropriate nutritional objectives, listing alternative strategies to reach these objectives and then assessing these options to identify the most appropriate.

Instead, food/livelihood security responses in emergencies typically focus on households and their resilience and access to assets, income and food energy. This approach ignores two elements of the accepted food security definition: ‘all people’ i.e. each individual within the household; and ‘nutritious food’, i.e. including protein, minerals and vitamins. Huge opportunities for intervention are lost. Even when early warning of impending food insecurity allows us to establish a comprehensive strategy for tackling the problem of undernutrition involving all relevant sectors and actors, by assessing the cost-effectiveness of say emergency feeding compared to an early food security response, this does not happen. The humanitarian community as a whole tends to spend the time before the looming disaster preparing itself to treat acute malnutrition, rather than trying to prevent it.

### *Step 4: Establishing a monitoring system*

In many instances, the food security sector has lost nutrition from its radar long before this step. Since nutrition is so rarely included as an explicit and genuine objective, nutrition-specific objectives are not monitored.<sup>8</sup> Food security actors believe that nutritional monitoring is technical and someone else’s business. There is much that they could do – most particularly to monitor diet. Dietary diversity is simple to measure, falls under the remit of food security and is a key determinant of nutritional status.

*Out of the 761 [impact evaluations] listed by the CGIAR as having been published from 1995–2008, only 83 listed impact focusing on welfare indicators such as income or nutrition/health status.<sup>9</sup>*

*Only 30 of 307 studies of agricultural interventions that aim to have an impact on nutrition (including fisheries, livestock, dairy, home gardens) actually contain an impact assessment on nutrition relevant indicators.<sup>10</sup>*

7 Reference to levels of undernutrition amongst children under the age of five is often made in the introductory part of a project document. However, this rarely translates into a specific nutrition objective for the project.

8 A nutrition objective may sometimes be claimed in the introduction of a proposal for funding, but it is rarely taken seriously; nutrition is rarely included in the LFA as a deliverable, or as a key indicator of achievement.

9 Lawrence Haddad, ‘From Harvest Plus to Harvest Driven: How To Realise the Elusive Potential of Agriculture for Nutrition?’, 28 October 2010, <http://www.scribd.com/Bio-Fortification-Conference-2010-Oct-28-Lawrence-Haddad/d/42020607>.

10 Initial findings of the Institute of Development Studies (IDS) systematic review of agriculture interventions at <http://www.developmenthorizons.com/2011/02/how-to-make-agriculture-more-pro.html>.

The failure of the overwhelming majority of food security projects and programmes to monitor their contribution to nutrition means that, over the years, we have not built up understanding or evidence of the actual nutritional impact of food security interventions. This is sorely needed to determine and prioritise effective interventions and to reorient those actions that prove to be ineffective or have a negative impact. Box 1 shows that, when research is done in this area, assumptions about the link between food security interventions and nutrition outcomes can be challenged. It is unfortunate that the evidence has not been collected to allow us to know how typical the case described in Box 1 is.

### Box 1: Measuring nutritional impact – and what causes it

The Integrated Food Security Programme in Luang Namtha province in Northern Laos included interventions addressing food and cash crop production, health care, primary and non-formal education and communal infrastructure. Research found that it had a positive impact on reducing stunting amongst children under five years of age. These improvements were brought about mainly through water interventions and the adoption of a more productive and sustainable rice production system. However, the causal chain between the rice production system and better nutrition challenged many assumptions. Impact was found not to be the result of increased yields but rather the reduced workload for women, allowing them more time to care for their children.

### What is being done

The lack of attention to nutrition by food security interventions is being challenged by some humanitarian and development actors. Initiatives can be found at different levels: some projects are being designed to bring about better integration of nutrition and food security approaches; tools have been developed for bringing a nutritional lens to food security projects, or for integrating nutrition and food security analysis; and specific interventions and intervention types have been designed with a broad food security-nutrition focus.

#### Specific projects

Some discrete projects are bringing a broad nutrition-food security perspective to their work. One example from Somalia involves a project supporting IDP (pastoralist drop-out) households to access a greater diversity of locally produced food items through vouchers.<sup>11</sup> A study looking at milk marketing identified weaknesses in the market system related both to processing/hygiene and the undeveloped nature of the market in general. An opportunity was identified to support child nutrition by supporting children's access to locally produced milk. According to the study, this could be achieved by supporting the marketing system (improved hygiene, better processing, working capital for traders) and supporting access for IDP children through a system of vouchers. Consumption studies were used to establish that the market could meet a supported demand during seasonal periods of low production and high prices. Whatever the appropriateness of these specific solutions in this particular context, this is an example where an analysis of causal pathways for nutrition (good

11 S. Momanyi and A. Jenet, 'Study on Hygiene Practices and Market Chain of Milk and Milk Products in Somalia', *Field Exchange*, 39, September 2010.

and bad) went right down to underlying causes in the marketing system of an important potential food item, and measures were then identified to improve nutrition through a set of complementary interventions, none of which would necessarily be classed as belonging to the 'nutrition sector'.

There are other more general initiatives in the use of certain intervention types. There is good evidence that significant parts of any cash transfer are spent on buying more or better-quality foods. There are several examples of cash/voucher projects that have been evaluated and/or monitored using a nutrition lens, and even designed with a nutrition objective.<sup>12</sup>

One project was designed to combat severe food insecurity in the hungry season in the Maradi region of Niger, during the food price crisis of 2008.<sup>13</sup> A cash transfer targeting approximately one-third of the population was conditional on women attending nutrition awareness sessions and participating in community public health activities. The project monitored 100 beneficiary households, including anthropometric measurement of children. There was a significant improvement in children's diet, with the proportion of monitored households able to add milk to traditional millet-based porridge increasing from 50% to 80%. However, the diet still lacked micronutrients, particularly those found in animal products. Access to these could be enhanced by increasing the amount of the cash transfer. The nutritional status (measured by weight-for-height) of children under five improved following the first cash transfer, but then worsened with the seasonal increase in malaria and diarrhoea. A variety of lessons can be learned: cash transfers can make an important contribution to better nutrition where nutritional status is a function of economic factors (household food insecurity), but impact is only optimised where the programme design has explicit nutrition objectives, and is based on in-depth knowledge and analysis of the causes of malnutrition, of specific dietary deficiencies – and the cost of correcting them.

Bio-fortification (breeding and promoting crops with higher nutritional content, such as vitamin A-rich sweet potatoes) is attracting increasing attention. These kinds of approaches show promise, though there is insufficient research into their impact on nutrition at any scale. Their potential to affect nutrition in any context will depend on whether or not the problem they address is an important cause of malnutrition in that specific context, and upon implementation modalities, amongst other factors.

However useful intervention types such as bio-fortification and cash transfers may be, it is important that they do not become the new universal 'silver bullets' for dealing with malnutrition. They should be used where a good causal analysis of nutrition problems and a good response analysis indicate that they are the most effective, appropriate and cost-effective way of achieving improved nutrition, in conjunction with other actions addressing the other causes.

12 See for example S. Devereux and P. Jere, *Choice, Dignity and Empowerment. Cash and Food Transfers in Swaziland. An Evaluation of Save the Children's Emergency Drought Response 2007/08*, 2008; M. Brewin, *Evaluation of Concern's Kenya Kerio Valley Cash Transfer Pilot*, 2008; S. Sandström and L. Tchatchua, *Do Cash Transfers Improve Food Security in Emergencies? Evidence from Sri Lanka*, 2010, as well as other cases from Malawi, Aceh, Lesotho, Niger and elsewhere. Examples of the case or voucher programmes designed with a nutrition objective include vouchers for fresh foods in Haiti and Dadaab by ACF and the use of cash to 'protect' nutrition rations in Niger by Concern Worldwide.

13 SC UK, *How Cash Transfers Can Improve the Nutrition of the Poorest Children: An Evaluation of a Pilot Safety Net Project in Southern Niger*, 2009.

## Box 2: The necessary steps for analysing child hunger in Save the Children (UK)'s tool

- Step 1: Decide your objectives
- Step 2: Work out the key questions that you need to answer
- Step 3: Decide the scope of the situation analysis and design an initial plan to develop it (consider both objectives and costs, time commitments, competencies, etc.)
- Step 4: Review secondary information
- Collect secondary information on malnutrition and its causes
  - Check your secondary information for accuracy and relevance
  - Systematically record secondary information
- Step 5: Using existing information to understand hunger/malnutrition
- 5.1 Drawing an overview of the levels, trends and worst-affected areas/groups:
- Review the above for the key indicators/types of malnutrition
  - Identify gaps
- 5.2 Drawing an initial causal 'model':
- Construct a causal framework with the selected secondary information
  - Identify gaps, inconsistencies and issues requiring validation in your analysis
- Step 6: Primary information collection to fill in information gaps
- Review your plan to include primary data collection based on the gaps in your analysis
  - Decide which methods to use for data collection according to the type of data needed
  - Prepare your data collection tools
  - Data collection
  - Data analysis and interpretation
  - Revise the causal model with new information
- Step 7: Revision of the causal model; identification of the main causes and causal pathways
- Step 8: Analyse the 'response context'
- Policy context
  - Stakeholder analysis
  - Change analysis
  - Lessons learned from previous initiatives (in this or other contexts)

### Tools

A number of agencies have developed tools to combine food security and nutrition perspectives.

### Pre-intervention tools

FAO has developed a number of tools and training materials to bring nutrition and food security together, including Guidelines for Participatory Nutrition Projects, a tool for training civil servants in local government on integrating food security,

nutrition and good governance and tools to measure dietary diversity and food access.<sup>14</sup>

Save the Children (UK) has developed guidelines for 'hunger' programming (where the concept of hunger quite consciously straddles both sides of the food security–nutrition 'divide'), focusing on analysing the causes of hunger and malnutrition. The tool helps programmers to analyse the causal chain, going back to underlying causes e.g. at the level of national policy, and the way in which overall economic factors affect different groups, and aligning these to the more immediate causes of malnutrition at household or community level (see Box 2).

The guidelines demonstrate how a full analysis needs to incorporate many kinds of research, and how to use original research to fill in key knowledge gaps. Box 3 illustrates how research into malnutrition in Myanmar combined four different pieces of information to learn about the determinants of malnutrition and to identify approaches to improve the situation.

It is also important to note earlier guidance on nutrition analysis, such as the WHO *'Guide pour le diagnostic nutritionnel'* and GTZ guidance.<sup>15</sup> Meanwhile, the Infant and Young Child Nutrition (IYCN) project of USAID published its Nutritional Impact Assessment Tool in February 2011.<sup>16</sup> It is designed to 'maximiz[e] the positive impacts of agricultural interventions on nutritionally vulnerable and food insecure populations' (see Table 1). The tools offer guidance on how to include elements and activities which will maximise their nutritional impact ('involve women', 'integrate nutrition counselling'). They also help programme designers to consider the nutritional implications of their projects, including identifying potential unintended negative impacts, and so helping them to put in place mitigation strategies or alternative activities.

### Monitoring and evaluation tools

FAO and the Food and Nutrition Technical Assistance (FANTA) project have developed guidance for monitoring and evaluating food security programmes and their contribution to nutrition.<sup>17</sup> In particular, they have developed indicators and methods for household and individual dietary monitoring in food security programmes. Indicators such as the Individual Dietary Diversity Score could be more systematically considered in order to measure the contribution of food security interventions.

### Limits to progress

These examples given here would ideally work in series. The conceptual framework provided by FAO's FIVIMS could be used in Save the Children's CRSA tool, which focuses on problem analysis. USAID's IYCN NIA tool lacks a causal analysis, and takes as its starting point the project objectives and activities. The three together provide a nutrition-food security-specific

<sup>14</sup> See [http://www.fao.org/ag/AGN/nutrition/household\\_en.stm](http://www.fao.org/ag/AGN/nutrition/household_en.stm), <http://www.foodsec.org/web/tools/nutrition/overview/en> and [http://www.fivims.org/index.php?option=com\\_content&task=view&id=18&Itemid=39&lang=en](http://www.fivims.org/index.php?option=com_content&task=view&id=18&Itemid=39&lang=en).

<sup>15</sup> I. Beghin, M. Cap and B. Dujardin, *Guide pour le diagnostic nutritionnel*, WHO, 1988.

<sup>16</sup> Again, it is beyond the scope of this paper to discuss fully all the work being done. See <http://www.iycn.org/> for further information.

<sup>17</sup> See <http://www.fao.org/spfs/monitoring-evaluation/e-learning/en>; <http://www.foodsec.org/web/tools/nutrition/overview/en>; and <http://www.fantaproject.org/index.shtml>.

**Box 3: Multi-sectoral research into the causes of malnutrition in Myanmar**

In the Delta area of Myanmar the following information was used to develop a comprehensive nutrition programme: a livelihood analysis (in this case, using the Household Economy Approach), a health study with a Knowledge Attitude Practice component, a study on diets and a water and sanitation evaluation, as well as an anthropometric survey. The latter on its own would not have revealed the determinants of malnutrition.

Only 12% of carers reported feeding children more when they had diarrhoea. The causes of diarrhoea were known by 65% of mothers. Most mothers knew about Oral Rehydration Solution (ORS) but only 41% had ever used it. Nearly 60% of mothers

sought treatment when the child had diarrhoea, but only 12% went to a government health facility.

The analysis also showed that dietary diversity was poor. There were economic determinants, since the Dietary Diversity Score (DDS) of children was much lower in poor households. But since the better-off also had poor DDS, there were probably other factors at work too.

Simple provision of information is unlikely to be an effective change strategy. Trust in state health services is low, and since knowledge has not accompanied the use of ORS it is reasonable to conclude that nutritional advice provided by the health system is unlikely to be effective.

**Table 1: USAID’s IYCN Nutritional Impact Assessment Tool**

<b>Step 1</b>	List project objectives and activities	Outlines the objectives of the project and the activities that expected to achieve the objectives.
<b>Step 2</b>	Define food-insecure population groups	Identifies groups within project area that are more vulnerable to potential negative impacts due to current food insecurity.
<b>Step 3</b>	Determine the nutritional status of nutritionally vulnerable groups	Describes current levels of nutrition indicators for girls/women of reproductive age (15–44 years) and children younger than 2 years (or younger than 5 if data is not available for children younger than 2) within each food-insecure group identified. These groups are usually the most nutritionally vulnerable in a population.
<b>Step 4</b>	Create alternative approaches	Describes one alternative approach (sets of activities) for achieving project objectives, as well as ‘do nothing’ approach (what the situation would be over the same period of time if no activities are implemented).
<b>Step 5</b>	Estimate expected outcomes	Compares estimated nutritional impacts on vulnerable groups within food-insecure groups across the three approaches (proposed, alternative and ‘do nothing’).
<b>Step 6</b>	Modify the approach as needed	Enables modifications to proposed activities to offset potential negative nutritional impacts, or to choose an alternative approach that meets the project objectives and increases nutritional impacts.
<b>Step 7</b>	Assess alternative approaches	Summarises the selected approach, and provides a space for designers to justify selecting an approach even if it is not the approach that yields the greatest nutritional impacts.
<b>Step 8</b>	Design a mitigation plan	Establishes nutritional or food security indicators to be monitored during the project, with trigger levels for implementing a mitigation plan, and develops the mitigation plan.
<b>Step 9</b>	Develop a review plan	Provides a mechanism for external review, incorporation of feedback from the review, and final approval.

example of a response analysis framework from a technical perspective. They still lack other elements which FAO’s RAF provides; this RAF, specifically designed for humanitarian response, considers technical appropriateness as only one criterion, and judges interventions based on their timeliness, their technical capacity to implement the programme and the probability of adverse impacts – even beyond the technical nutrition-food security domain.

Initiatives such as these have gained ground in the past few years. Is the problem of the food security-nutrition disconnect likely to be solved soon? Three key barriers would need to be overcome. First, these tools are not being used on a routine basis, even within the organisations promoting or developing them. Incentives are needed to ensure their use. Joined-up thinking is still rare. For many years, lip-service has been paid to the idea that (for example) agricultural programmes should

look at potential negative impacts, such as an increase in water-borne diseases (e.g. in irrigation schemes), and the impact of women’s participation in agriculture on the feeding practices of their young children. The fact that the findings of the study from Laos (see Box 1) can still be surprising is testimony that this is not yet taken seriously enough. A look at the areas with frequent acute food problems shows where most attention is placed. Niger provides a useful illustration. Livestock is at the heart of the economy; food security actors recognise this, and they intervene on livestock health and mortality. Meanwhile, nutrition actors have responded to acute malnutrition with feeding programmes. The above example from Somalia showed a single agency linking milk markets, access to milk and nutrition. Such joint analysis has not been undertaken at the strategic level, for instance by the nutrition and food security clusters, to prevent a nutrition crisis through increased access to a better diet.

Second, synergy is missing because each of these approaches contributes something (causal analysis, assessment of alternatives), but creating a fully integrated tool based on them together could be much more powerful. Such synergy does not always happen spontaneously in an industry where each agency develops – and promotes – its own tools, approaches and projects.

Third, these interventions remain discrete. The hope is that, if they work and can demonstrate that they are effective under certain conditions, they will be copied and will gradually change practice across the sectors. However, this depends on rather optimistic assumptions about what drives change.

The work on a Response Analysis Framework offers an opportunity to move forward in a different way. The FAO Response Analysis Framework project was designed partly because too much programming starts from pre-identified activities aimed generically at symptoms, rather than starting from problem analysis, identifying a range of necessary interventions and testing each one against a set of alternatives according to a wide set of criteria, and integrating impact monitoring to learn lessons and enable continual improvements in response capacity. It would be wrong, then, to address this very problem by using the same methods – starting by choosing interventions without an understanding of the situation (including a causal analysis) and monitoring impacts on programming at the sector level.

## What to do?

The recognition that nutrition and food security have become disconnected is not new – but, despite several positive initiatives and projects, the general problem remains unresolved. We have tried here to address the problem by using a proper response analysis, i.e. starting with a diagnosis of the underlying causes of the problem. If our analysis is correct, this would help to explain why the general problem persists, despite programmes that have tried to bring nutrition and food security back together. If there are underlying causes of the problem which remain unaddressed, then individual positive, and even successful, initiatives may be copied to some degree, but their lessons might not automatically be incorporated into all food security and nutrition analysis and programming. We badly need programmes that integrate nutrition and food security, but this alone is not enough. We also need initiatives that address the causes of the disconnect itself. The causal analysis of the problem presented here offers some suggestions for a way forward. The role of affected states and communities is not discussed here, although they have primary responsibility for the welfare of people affected by crises. Previous sections would, we believe, be relevant for government departments dealing with food security and nutrition. This section restricts its analysis to the role of humanitarian actors, both national and international, as this paper was commissioned by and written for them.

If agencies were simply ignorant about the link between food security and nutrition, then one could bring change just by pointing this out. Since that is unlikely to be generally true, we are faced with the question: what would give agencies an incentive to change the way they currently do business? One obvious – but controversial – way would be for donors to make funding contingent upon agencies making the food security-nutrition linkages. Obviously this does not mean that all projects have to conduct separate and independent situational/problem

analysis or ‘do agriculture’ or ‘do nutrition’. It should mean that all programmes are based upon an analysis of problems and opportunities, which includes the overall terrain of food security and nutrition outcomes. It does not seem unreasonable to ask that solutions be designed based on a diagnosis of the problem. Agencies proposing food security interventions would have to show that they have considered the implications for nutrition, have at least good reasons for believing that the intervention would either be neutral or positive in relation to nutrition and have put in place measures to mitigate any potential negative impacts. As we have seen above, this is not technically new ground, but is very much the ground covered by USAID’s IYCN Nutritional Impact Assessment Tool. The tool needs to become an industry Standing Operating Procedure, rather than a confined project.

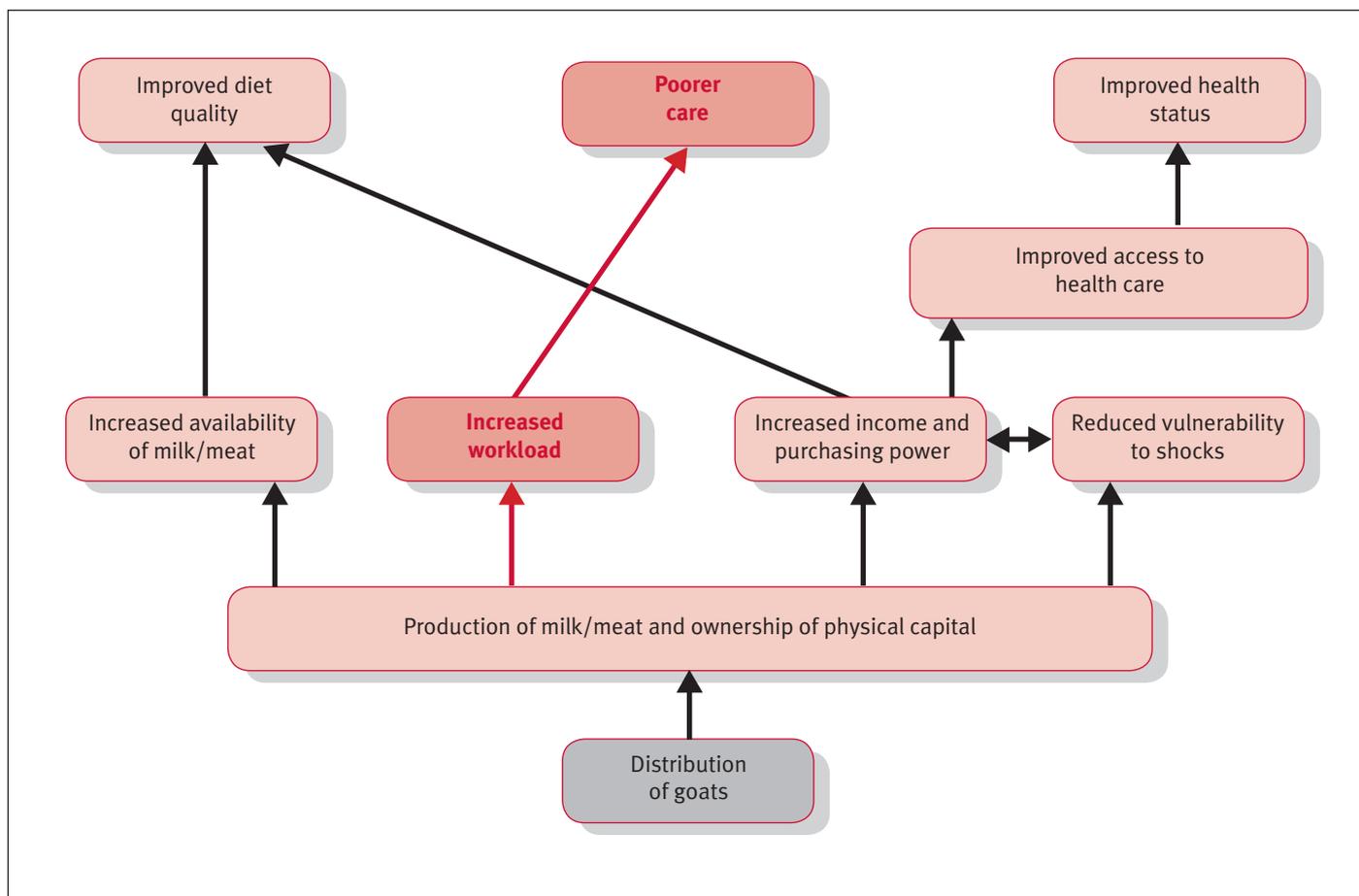
The implications of an approach whereby food security programmes must show that they have considered nutrition outcomes reach deeper. First, for this to be more than an exercise in lip-service, agencies would have to establish some basis for monitoring the impact they were having on nutrition. This would not necessarily have to involve large anthropometric surveys, but would have to make explicit some assumptions about a causal chain or ‘programme theory’. For instance, in the Figure 4 example ‘increased ownership of goats should increase households’ income and access to milk which should improve diet quality’.

Each of these links in a logical chain can be easily monitored. The programme causal chain, then, which would parallel the nutrition conceptual model, would become the basis for setting monitoring indicators. The idea that a process logic or programme ‘theory’ should be made explicit and that monitoring indicators would continually test it is not new – it is the very rationale for the Logical Framework Analysis. The LFA is an industry standard, demanded by many donors. The fact remains that it is not standard practice for agencies or donors to use it rigorously in the way it was intended. We argue that, whichever format a donor or agency uses in its proposals, it is time to take much more seriously the requirement to make explicit a programme logic and to monitor it. As noted above, it is rare for agencies to include any nutritional indicators in food security programmes. Simply including indicators will not be enough: a cultural change is needed so that monitoring commitments are regularly honoured, that lessons are drawn from monitoring and that these lessons are then used. This has capacity-building implications.

The widespread adoption of a response analysis framework such as the one developed by FAO would offer another important opportunity to ensure that nutrition and food security are integrated. After the problem analysis discussed above, the response analysis framework demands that a range of response options are then considered and evaluated. All nutrition and food security projects should be tested in advance against alternatives that cover the whole nutrition-food security landscape. Where there are purely ‘food security’ objectives, alternatives should be compared for their probable impact on nutrition outcomes.<sup>18</sup> Where there are nutritional objectives, the alternative interventions tested should include those that attack different kinds of causes of malnutrition (household food security, health, food use). The current RAF provides an

<sup>18</sup> This analysis should be disaggregated as appropriate – not just by age group but also by other factors that determine nutrition outcomes, e.g. wealth status, by livelihood activity, for single mothers, etc.

Figure 3: Example of a causal chain (adapted from the EU Delegation in Mali)



excellent opportunity for this kind of comparative analysis: it will be important to ensure that it does so. Hopefully, this will depend on a critical mass of actors within the humanitarian system establishing agreed standards, and using existing coordination mechanisms to promote them.

A Response Analysis Framework, or a process of response analysis, will ultimately only gain ground if it shows that it brings about better responses. We will only know this, and only build up evidence to support response analysis, by routinely measuring impact and analysing why we are, or are not, having the impact we anticipated. This paper argues that food security-nutrition integration needs to be evident at all steps in the chain, and impact assessment may even be the most important. All food security interventions should measure their impact on nutrition, since this is surely the basis of their very justification. The problems with anthropometric surveys are known. Simple tools are needed for measuring indicators of nutrition in different contexts. This does not necessarily involve measuring nutritional status itself. These indicators and methodologies need to be widely agreed. Impact assessment is not currently standard practice in humanitarian action in any sector, and there are those who argue that it cannot even be done.<sup>19</sup> A recent (independent) review of humanitarian assistance for one donor has highlighted the importance of a sector-wide change in the way accountability is seen, with an

<sup>19</sup> The justification for this rests partly on the time frame of humanitarian action, partly on the ethical impossibility of setting up a control population and because impact in humanitarian action is frequently that something negative (mortality, morbidity) did not occur, rather than that something positive did occur. The lack of a negative is much harder to assess and to ascribe a causal link.

increasing emphasis on accountability by humanitarian agencies for impact.<sup>20</sup> If this paradigm shift does indeed gain ground, it will be another initiative that can have a very positive role in helping to ensure the development of an integrated food security-nutrition lens for analysing all aspects of interventions.

Change is also needed in the way in which humanitarian response is coordinated and governed. Currently, humanitarian response is organised around ‘clusters’, usually with a UN agency with responsibility for the cluster – i.e. responsibility for leading the cluster, and with the ultimate responsibility for the sector as a whole. Coordination meetings, information sharing, technical discussions and strategic debate all happen around these clusters. Food security has a cluster led by FAO and WFP. Nutrition is a separate cluster, led by UNICEF. Although agencies can, and often do, belong to both clusters, the agendas are different, the people representing the agencies are often different and it becomes much more difficult to establish a common analysis of the actual problem, within a single causal framework.

This is a product of the way the humanitarian community has organised itself: we have gathered ourselves together around our activities and solutions (i.e. we have sectoral clusters), rather than gathering ourselves around problems (problem clusters).<sup>21</sup> Something has to change. There are

<sup>20</sup> For DFID see the *Humanitarian Emergency Response Review*, March 2011, <http://www.dfid.gov.uk/Documents/publications1/HERR.pdf>.

<sup>21</sup> In fact, the clusters spend most of their time sharing information about their activities rather than on analysis and strategy development. This too must change.

many institutional vested interests in the cluster system and it may not be realistic to expect current arrangements to change quickly: at the very least, it would not be difficult to introduce a standard procedure for automatically establishing a joint food security-nutrition 'strategic advisory group' to develop a causal analysis and draw up strategic options. Here, agencies could share evidence for building up a causal map of malnutrition and food insecurity, and could draw up intervention strategies covering the whole nutrition-food security landscape. The sectoral clusters would then be forums for discussing and coordinating the implementation of these strategies.

This alone would not be enough. An overall strategy may involve a range of actual interventions, some of which would be seen to fall under the nutrition cluster and some under the food security cluster. It would be wrong for each sector simply to ignore their responsibility for ensuring that the strategy as a whole was implemented. Even where activities are to be undertaken by the actors of one 'sector', others should not assume that this is being done, but should actively ensure that this takes place and engage with the outcomes. This would represent a cultural change in how the humanitarian community operates. Humanitarian Coordinators and Resident Coordinators could show leadership in this area. This approach could be piloted in one or two countries to see how it works, and how it improves response.

Progress towards improving the impact of humanitarian action on nutrition will also be advanced if the 'early response agenda' is taken forward. The lateness of humanitarian response, especially to slow-onset crises, is well documented. Late response makes it almost impossible to prevent a nutrition problem by supporting livelihoods which are under strain: once livelihoods have failed, and malnutrition rates soar, intervention is pushed towards targeting the problem itself (feeding malnourished children) rather than addressing the (potential) causes of the problem (poor markets for livestock, lack of disposable income to buy food at rising prices, increased demands on mothers' time to find food). The delay between providing livelihood (i.e. food security) support and changing nutrition outcomes means that, when a crisis has already developed, this is not seen as an appropriate strategy, and the worlds of livelihood support and of nutrition are almost completely separated. Early action does not rule out any possible interventions, but it does rule in very many more possibilities, and it allows for food security interventions to be

used to prevent a rise in undernutrition, where analysis shows that this would be effective.

Ultimately, the responsibility for ensuring food security and good nutrition in crises should not rest with humanitarian actors at all. Nutrition and food security crises only occur after hazards where underlying vulnerabilities were not adequately addressed. If levels of resilience were built up, then communities and affected states would be able to manage their own problems without external assistance. There is a need for governments to implement development strategies and policies that increase the resilience of their populations to hazards threatening their food security and nutritional status. Addressing this issue, though, is another problem altogether.

### Summary of recommendations

- The food security sector needs to take its responsibility for nutrition seriously. Nutrition actors need to be much broader in their thinking about undernutrition and its causes. Food security actors need to apply a nutrition lens to assessments, problem analysis, programming and monitoring.
- Current gaps in response to undernutrition can be identified, using shared frameworks and tools. Once these gaps are identified, responsibility for actions can be allocated.
- The improved use of shared frameworks and tools could also contribute to improving cooperation (not just coordination) between food security and nutrition actors.
- Change in the organisation of humanitarian assistance is needed for this to happen. The nutrition and food security clusters have to find a way of joining forces to work together on shared analysis and joint strategy development.
- Synergy is required between the tools used for situation analysis, response analysis and monitoring and evaluation.
- Maternal and child undernutrition is one of the most important impacts of food insecurity. Household food insecurity is one of the most important determinants of undernutrition. Treating them as two 'sectors' makes little sense.