



## HUMANITARIAN EVIDENCE PROGRAMME

# The influence of market support interventions on household food security: An evidence synthesis protocol

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**Picture**

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# ACRONYMS

<b>BEAM</b>	Building Effective and Accessible Markets
<b>CaLP</b>	Cash Learning Partnership
<b>CRS</b>	Catholic Relief Services
<b>CTP</b>	Cash transfer programme
<b>DFID</b>	Department for International Development
<b>ECHO</b>	European Commission's Humanitarian Aid and Civil Protection department
<b>EMMA</b>	Emergency market mapping and analysis
<b>ERC</b>	European Research Council
<b>FAC</b>	Food Aid Convention
<b>FANTA</b>	Food Security and Nutrition Technical Assistance project
<b>FAO</b>	Food and Agriculture Organization of the UN
<b>FCS</b>	Food consumption score
<b>FSNAU</b>	Food Security and Nutrition Analysis Unit
<b>GSDRC</b>	Governance and Social Development Resource Centre
<b>IDS</b>	Institute for Development Studies at Sussex University
<b>IFAD</b>	International Fund for Agricultural Development
<b>IFPRI</b>	International Food Policy Research Institute
<b>IIED</b>	International Institute for Environment and Development
<b>IPC</b>	Integrated phase classification
<b>IRC</b>	International Rescue Committee
<b>JPAL</b>	Abdul Latif Jameel Poverty Action Lab
<b>KDS</b>	Key Development Services
<b>MDG</b>	Millennium development goals
<b>NGO</b>	Non-government organization
<b>OCHA</b>	United Nations Office for the Coordination of Humanitarian Affairs
<b>ODI</b>	Overseas Development Institute
<b>PCMA</b>	Pre-crisis market analysis
<b>PICOS</b>	Populations, interventions, comparisons, outcomes, and study types
<b>RAM</b>	Rapid assessment for markets
<b>RCT</b>	Randomized control trial
<b>SDG</b>	Sustainable development goals
<b>SEEP</b>	Small Enterprise Education and Promotion Network
<b>SLA</b>	Sustainable livelihoods approach
<b>SPRING</b>	Strengthening Partnerships, Results, and Innovations in Nutrition Globally
<b>UNHCR</b>	United Nations High Commissioner for Refugees
<b>UNICEF</b>	United Nations Children's Emergency Fund
<b>UNDP</b>	United Nations Development Programme
<b>WaSH</b>	Water, sanitation and hygiene
<b>WFP</b>	World Food Programme
<b>WHO</b>	World Health Organization
<b>WTO</b>	World Trade Organization
<b>3ie</b>	International Initiative for Impact Evaluation

# 1. INTRODUCTION

Within the context of the World Humanitarian Summit in May 2016, and the successful agreement of the sustainable development goals (SDGs), the humanitarian sector is increasingly recognizing the potential role of markets in achieving not only sustainable economic development but also higher impact humanitarian responses. Additionally, as the gap between needs and funding widens, the increased uptake of cash transfer programmes (CTPs)<sup>1</sup> can help close this gap through increased cost efficiency and effectiveness and provide opportunities to improve humanitarian assistance (Center for Global Development, 2015:9). Markets are an integral part of people's lives, and people are an integral part of markets, so humanitarian responses not only need to be designed with a good understanding of key markets but can also support markets. With this in mind, the goal of market support interventions is to improve the situation of the crisis-affected population by providing support to critical market systems the target population rely on for goods, services, labour or income. These interventions can target specific market actors, services and infrastructures through dedicated activities (i.e. the market support activities) to enhance outcomes for people affected by humanitarian crises, such as households'<sup>2</sup> food security.

Humanitarian organizations have increasingly incorporated market assessments in their assessment protocols and response analysis frameworks, yet the implementation of activities supporting the market as a direct result of analysis is not common irrespective of market analysis recommendations (IRC, 2014). As a consequence, the influence of such activities on the lives of people affected by a crisis remains unclear, with the pieces of evidence on this issue scattered.

The purpose of this document is to describe the scope of, and methodology for, an evidence synthesis on the influence of market support interventions on household food security in humanitarian crises so that the search and analysis of the literature can potentially be replicated and tested in the future. As in a similar humanitarian evidence programme piece of systematic research (Maynard, Parker, and Twigg, 2016), an 'evidence synthesis' will be undertaken. The intention is to move away from a narrow review of academic research towards a synthesis of evidence including also grey literature, project evaluations and more.

Section 2 of this protocol describes the aim of the review, defines key terms and delineates the scope of the research. Section 3 sets out the analytical framework and in Section 4 a step-by-step description of the evidence synthesis methodology is provided, including an explanation of the inclusion and exclusion criteria and details on the search strategy. Finally, Section 5 of the protocol provides information on how the data will be synthesized and analysed during the search phase.

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<sup>1</sup> CTPs refer to all programmes where cash (or vouchers for goods or services) are directly provided to beneficiaries. In the context of humanitarian assistance, the term is used to refer to the provision of cash or vouchers given to individuals, household or community recipients; not to governments or other state actors. CTPs cover all modalities of cash-based assistance, including vouchers. This excludes remittances and microfinance in humanitarian interventions (although microfinance and money transfer institutions may be used for the actual delivery of cash). The term can be used interchangeably with cash based interventions and cash based transfers. For more information see the cash learning programme glossary: <http://www.cashlearning.org/resources/glossary> Retrieved 16 May 2016

<sup>2</sup> 'The term 'household' refers to individuals living and eating together' (WFP, 2009:56).

## 2. AIM AND SCOPE OF THE EVIDENCE SYNTHESIS

### 2.1. RESEARCH QUESTION

This research aims to gather the available relevant literature and synthesize evidence regarding the influence of market support interventions on household food security in post-shock contexts. The findings of the evidence synthesis will be available publicly, with the ultimate goal of improving humanitarian policy and related market support activities.

The evidence synthesis aims at answering the following question:

**What is the influence of market support interventions on household food security in humanitarian crises?**

Given the known weaknesses of the evidence base, we will focus on both attribution and potential contributory effects, or *influence*, of the market support activities. If clear causal relations emerge in the process of synthesizing evidence, we will analyse them specifically. As much as possible the evidence synthesis will qualify the type and level of influence.

The secondary research questions are:

- What are the project parameters that drive the inclusion and exclusion of market support interventions in humanitarian crises?
- What are the potential barriers and enablers to market support interventions (contextual and institutional ones)?
- What effects of market support interventions are measured?
- What is the influence of interventions supporting traders on household food security in humanitarian crises?
- What is the influence of interventions supporting market services and infrastructures on household food security in humanitarian crises?
- Who are the main actors targeted for market support activities? Are there any specific exclusion factors?
- What are the gaps in research evidence about market support approaches?

### 2.2. SCOPE OF THE EVIDENCE SYNTHESIS

#### 2.2.1. Humanitarian crises

This evidence synthesis focuses on market support interventions implemented in contexts often called 'humanitarian crises' or 'humanitarian emergencies'. Humanitarian actors have defined the expression 'humanitarian crisis' as 'an event or series of events that represents a critical threat to the health, safety, security or wellbeing of a community or other large group of people, usually over a wide area' (World Health Organization, 2007:7; Humanitarian Coalition, 2015). This definition has been criticized because of its potential depoliticizing effect. In June 1994, the United Nations Security Council resolution 929 referred to the genocide happening in Rwanda as a 'humanitarian crisis' (Brauman, 2009), the expression acting as an instrument for states' political disengagement.

The expression is intrinsically ambiguous as it associates 'crisis' i.e. the set of problems people may face, with the word 'humanitarian' originally associated in the four Geneva Conventions (1949) to impartial *actors* providing relief in conflict settings,<sup>3</sup> as well as their *activities* and *duties*.

Bearing in mind these critiques, this evidence synthesis will not avoid the expression 'humanitarian crisis' as it is widely used in the literature that will be synthesized. Yet in order to overcome the challenge of delineating the literature dealing with 'humanitarian crises', we will consider that situations are labelled 'humanitarian crises' when actors that claim to be *humanitarian* get involved in supporting affected people. Whether actors call themselves 'humanitarian' and whether they are active in specific contexts is objectively verifiable (through organizations' websites and issued reports etc.), therefore their presence will help delineate 'humanitarian crises' as follows: 'There is humanitarian aid quite simply when groups claim to implement humanitarian action and organize to this end an intervention apparatus applying to other social groups' (Dozon and Atlani-Duault, 2011:400).

This approach hence escapes normative assumptions about what is and what is not a 'humanitarian crisis'. The expressions 'humanitarian emergencies' or 'emergencies' could also be debated, but we will align with the common practice in the humanitarian sector as taking 'emergencies' to be synonymous with 'humanitarian crises'. However, we would favour the use of less loaded terms such as 'crisis' or 'post-shock contexts'.

Most of the countries where humanitarian actors implement humanitarian response projects are lower and middle income countries (LMIC) as defined by the World Bank. Yet additionally, they are countries where some people's lives and/or access to basic needs including food, water, healthcare and shelter are threatened on account of some form of humanitarian crisis. Those crises are sometimes divided into natural disasters and complex emergencies or 'complex political emergencies' (Duffield, 1996; Macrae, 2000). Yet even though categories such as 'complex emergencies' can be useful for analysing the role of political violence in emergencies (Keen, 2007), or for policy and advocacy purposes (OCHA, 1999), we do not find this divide relevant for our analysis. Such a divide could give the impression that natural disaster settings do not feature as complex environments when it has been showed that they are (Revet, 2012). Furthermore, some contexts that are labelled 'complex emergencies' do also include consequences of natural disasters (Keen, 2007:3).

Our approach in this evidence synthesis is instead to include all humanitarian crises and to consider the specificities of each context in which market support interventions are implemented by describing them and naming the type of crisis. Notions of complex emergencies and natural disasters will be unpacked if they are used in the literature, in order to identify whether they relate to internal or international conflict, ethnic cleansing, genocide, large-scale epidemics such as the recent Ebola outbreak, natural disasters such as earthquakes, floods, tsunamis, droughts, economic shocks and inflation or a mix of several events.

Likewise, we would prefer to avoid categories of humanitarian response phasing – relief, early recovery and reconstruction in our analysis. It has long been agreed that such phases cannot be neatly compartmentalized and that activities associated through their funding to relief or reconstruction or development may in fact happen simultaneously (Buchanan-Smith and Maxwell, 1994:3). In the run-up to the May 2016 World Humanitarian Summit, the UN high-level panel on humanitarian financing emphasized this issue from an institutional point of view. 'The humanitarian and the development worlds cannot continue to exercise what is at best a benign neglect towards each other. They must commit to working constructively together. Part of the problem lies in the use of outdated definitions, used primarily by donors, which create artificial and unhelpful divisions,' the panel said (Sharrock et al., 2016: 3). Our synthesis will therefore describe how the response activities fit within the chronology of the humanitarian crisis and if they are implemented with a short or a long-term objective.

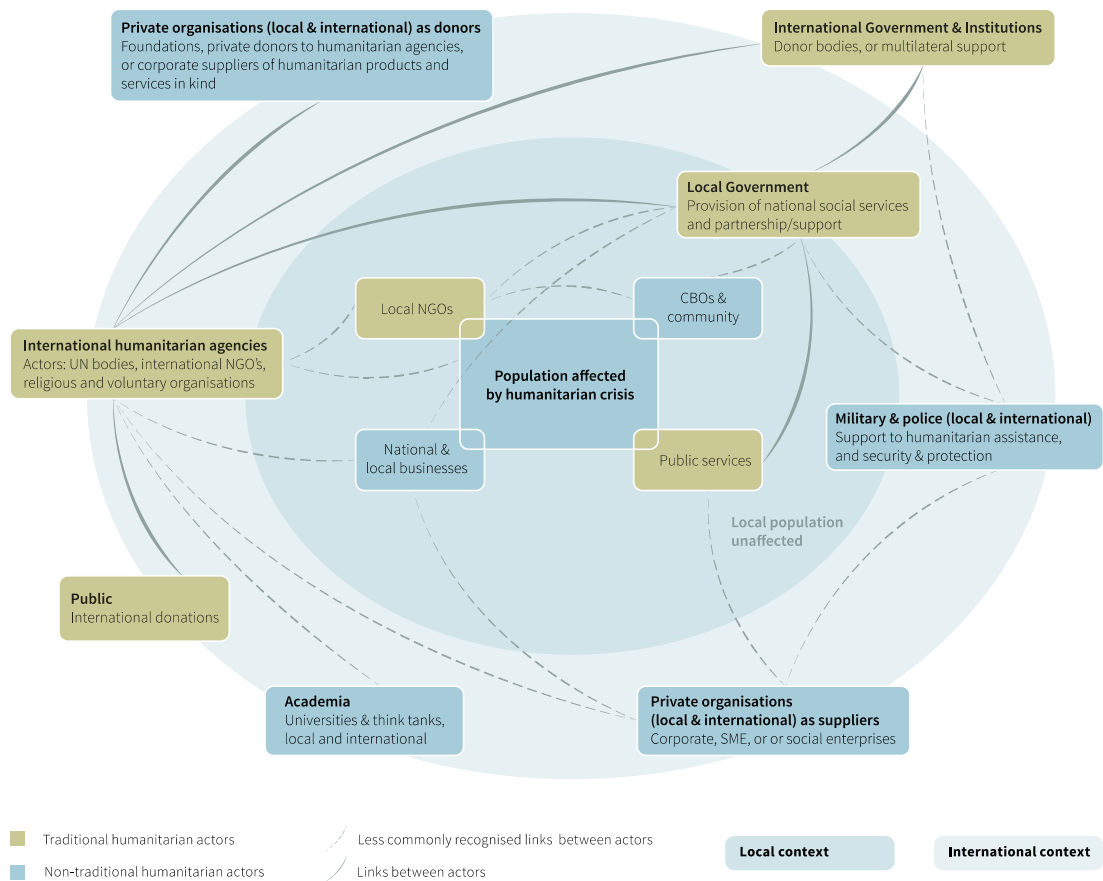
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<sup>3</sup> The expression 'International Committee of the Red Cross or any other impartial humanitarian organization' appears in all four 1949 Geneva Conventions.

## 2.2.2. The humanitarian system, ecosystem and arena

In recent years the literature has increasingly referred to humanitarian actors as evolving in a 'humanitarian system' or 'a network of interconnected institutional and operational entities through which humanitarian assistance is provided when local and national resources are insufficient to meet the needs of the affected population' (Stoddard et al., 2015:18). Such a system has also been presented in the developing literature on humanitarian innovations, as an 'ecosystem' for innovations within which there is 'a potential for new connections, mutual learning, and cross-fertilization' (Betts and Bloom, 2014:9).

**Figure 1: The humanitarian ecosystem**



Source: Betts and Bloom (2014: 9)

From an anthropological perspective, humanitarian actors evolve in an 'arena' in which they 'negotiate the outcomes of aid' (Hilhorst and Jansen, 2010: 1120) and 'in which [they] engage with and respond to their surroundings' (Ibid.: 1137).

All three perspectives are not mutually exclusive. They can be combined in our analysis of the literature as they collectively contribute towards a stronger definition. They illustrate the complexity within which actors undertake any kind of activities, they show that the environment of humanitarian crises is not made up exclusively of humanitarian actors (listed in Figure 1) and they spell out the existing interactions and negotiations between these actors.



### 2.2.3. What do humanitarian responses look like?

According to the latest state of the humanitarian system report: 'The number of international responses has gone down appreciably, particularly interventions for natural disasters... At the same time, significantly greater numbers of people were targeted for assistance... and the price tags for the responses have risen accordingly' (Stoddard et al., 2015:32).

Additionally, in more than 80 percent of the countries currently receiving humanitarian assistance, such responses<sup>4</sup> have been taking place continuously for the past five years and '40 countries (69 percent) were on their 10th straight year of receiving humanitarian aid' (Stoddard et al., 2015: 33).

Even though the majority of humanitarian actors are local and national NGOs operating only in their respective countries, 'the vast majority of donor funding, tracked by Financial Tracking Service, flows directly to UN agencies, INGOs and the Red Cross/Red Crescent movement' (Stoddard et al., 2015:39). Additionally, Médecins Sans Frontières, Save the Children, Oxfam, World Vision and International Rescue Committee, sometimes called 'the big five', represent together approximately 31 percent of NGO humanitarian expenditures (Ibid.: 41).

Those humanitarian expenditures, and especially the ones coming from the use of public funds, are increasingly being scrutinized for their value for money<sup>5</sup> (Jackson, 2012). Several stakeholders have undertaken extensive research into the value for money of various humanitarian response modalities (i.e. in kind, cash and voucher). While the Department for International Development (DFID) looked at the value for money of cash transfers (DFID, 2011; Scott, 2014) and the World Food Programme (WFP) at one of the different modalities to cover food security needs (Hidrobo et al., 2014), the potential value for money, including the potential multiplier effect, of market support activities seems to remain largely unexplored.

### 2.2.4. The concept of household food security

The term food security was first used in the mid-1970s, following the World Food Conference in 1974. Food security was defined in terms of food supply and price stability, very much reflected in the definition used at the time<sup>6</sup> (FAO, 2006). By the early 1980s an understanding of food access as well as supply was gained, resulting in a reformulated definition that reflected both elements (Ibid.).<sup>7</sup> The inclusion of household and individual levels as analytical units within food security was later included.

A World Bank poverty report in 1986 highlighted the distinction between seasonal or temporal natures of food security, introducing chronic and transitory food insecurity. The report stated how chronic food insecurity could be associated with problems related to continuing or structural poverty and low incomes. Conversely transitory food insecurity was a result of periods of disruption and pressure on household resources and capabilities caused by natural disasters, economic collapse or conflict elements (Ibid.). This distinction was further complemented by Sen's theory of famine published in 1981, in which he emphasized the effect of personal entitlements on food access (Ibid.), laying the theoretical foundations for what would be CTPs (Bailey and Harvey, 2015).

<sup>4</sup> We do not use the word 'intervention', as humanitarian 'interventions' or 'operations' have commonly referred to wars launched in the name of a cause presented as 'just' and necessary (Weissman, 2004; Bass, 2008; Fassin and Pandolfi, 2010), often for the sake of protecting civilians. In this evidence synthesis we will only consider non-armed activities.

<sup>5</sup> Value for money is about striking the best balance between the 'three Es' – economy, efficiency and effectiveness and increasingly an additional E for equity, included to ensure value for money assistance accounts for the importance of reaching diverse groups. Value for money is a way of thinking about using resources well.

<sup>6</sup> 'Availability at all times of adequate world food supplies of basic foodstuffs to sustain a steady expansion of food consumption and to offset fluctuations in production and prices' (FAO, 2006: 1).

<sup>7</sup> 'Ensuring that all people at all times have both physical and economic access to the basic food that they need' (FAO, 2006: 1).

These findings culminated into the 1996 World Food Summit food security definition that embraces and reinforces the multi-dimensional nature of food security including food access, availability, use and stability. Today, food security is widely understood to exist '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' (FAO, 2006:1). This widely accepted definition points to four dimensions of food security including: food availability, food access, utilization<sup>8</sup> and stability. Of these, food availability, access and stability are most pertinent to this review and can be understood as follows.

- **Food availability:** The availability of sufficient quantities of food of appropriate quality, supplied through domestic production or imports (including food aid).
- **Food access:** Access by individuals to adequate resources (entitlements) for acquiring appropriate foods for a nutritious diet. Entitlements are defined as the set of all commodity bundles over which a person can establish command given the legal, political, economic and social arrangements of the community in which they live (including traditional rights such as access to common resources).
- **Stability:** To be food secure, a population, household or individual must have access to adequate food at all times. They should not risk losing access to food as a consequence of sudden shocks (e.g. an economic or climatic crisis) or cyclical events (e.g. seasonal food insecurity). The concept of stability can therefore refer to both the availability and access dimensions of food security (FAO, 2006: 1).

Discussions on sustainable livelihoods ran concurrently with the 1996 World Food Summit. These discussions – led by organizations including the Institute for Development Studies at Sussex University (IDS), United Nations Development Programme (UNDP), the Overseas Development Institute (ODI) and International Institute for Environment and Development (IIED) (Solesbury, 2003) – culminated in the widely used sustainable livelihood approach (SLA) and related framework published in the late 1990s.

Organizations such as Oxfam and international humanitarian agency CARE applied sustainable livelihood thinking to their programme strategic analysis and design in the early to mid-1990s (Solesbury, 2003). Morse, Acholo, and McNamara (2009: 4) defined livelihoods as follows: 'A livelihood comprises the capabilities, assets (stores, resources, claims and access) and activities required for a means of living; a livelihood is sustainable which can cope with and recover from stress and shocks, maintain or enhance its capabilities and assets, and provide sustainable livelihood opportunities for the next generation; and which contributes net benefits to other livelihoods at the local and global levels and in the short and long-term.'

The SLA can be 'defined in terms of the ability of a social unit to enhance its assets and capabilities in the face of shocks and stresses over time' (Morse, Acholo, and McNamara, 2009: 3). The sustainable livelihood framework, originating from this approach could be used to illustrate linkages between:

- household assets or 'capitals' (natural, physical, human, social and economic or financial)
- the 'vulnerability context' in which they exist (shocks, trends and seasonality)
- transformative structures and processes they are exposed to (the institutions, organizations, policies and legislation that shape livelihoods)
- the livelihood strategies they employ (the activities people utilize to reach their livelihood goals)
- the resulting household outcomes (such as increased household income and food security) (DFID, 1999).

The framework clearly articulated and communicated these connections, encouraging practitioners to take a broader view of the context in which the target households lived (including access to and engagement with markets), and the problems they were trying to

<sup>8</sup> 'Utilization: Utilization of food through adequate diet, clean water, sanitation and healthcare to reach a state of nutritional well-being where all physiological needs are met. This brings out the importance of non-food inputs in food security' (FAO, 2006: 1).

address. The SLA provided donors, development and humanitarian practitioners with an approach and framework that could be applied for conceptual analytical and/ or practical programme planning. In essence, the SLA enabled the analysis of a situation and facilitated the identification of programmes (Morse and McNamara, 2013).

From a humanitarian food security perspective, the SLA highlighted the role of a household's livelihoods in achieving food security and the importance of bearing in mind the capacity of a household to withstand a shock. This has led to the inclusion of livelihood analysis and programming in post-disaster and preparedness food security interventions. Such programmes are now the mainstay of many humanitarian agencies. They are used to increase and improve the immediate food security status of targeted households while considering longer-term household needs through livelihood programming and understanding household food resilience.<sup>9</sup> The FAO is among the organizations to have developed resilience tools and frameworks for understanding the most effective combination of short and long-term programme strategies for lifting families out of poverty and hunger (FAO, n.d.).

The SLA also underlined the importance of acknowledging and understanding the influence of the external context on a household's food security. In the early millennium years, this was an area of increasing concern due to the number and scale of conflict-related food security emergencies being at an all-time high. Since 1995, violent conflict has also started playing a key role in worsening the impacts of disasters such as droughts on food crises (Harvey et al., 2005). Additionally, in the context of the post-Rwandan genocide and atrocities in Somalia, questions related to NGO neutrality, the ability to sufficiently understand the prevailing political context in which they work and negotiate 'humanitarian space' was in question (Collinson and Elhawary, 2012). The ensuing result was the realization of a need for closer collaboration and coherence with political actors, including western donors and international military actors. An act that has, it is argued, cost NGOs their neutrality as they are seen as being too closely aligned to the political policies of their government donors (Ibid.).

The ongoing Syria refugee crisis highlights the importance of understanding the external implementation context as NGOs strive to implement programmes that are sensitive to the policies of the hosting governments and the dynamic nature of population movements (OCHA, 2016). The US agency Mercy Corps has undertaken detailed analysis of the political affiliation of the business sector they were considering including in their Syria programme (Mercy Corps, 2016). Collinson and Elhawary (2012: 29) provided the following analysis: 'Prioritizing external factors over internal ones or simply focusing on internal technical issues has led to solutions that do not effectively address the problem'.

In line with the SLA and food security definitions, needs assessment approaches and tools have evolved to consider multiple factors. These include household livelihood activities and asset ownership, seasonality, market access and understanding food security status. A plethora of assessment tools and approaches that undertake an analysis of food security utilizing a livelihood lens have been developed over the years by organizations. These include WFP, Oxfam, the International Federation of the Red Cross and Red Crescent Societies, ACAPS and Save the Children through, for example, the Food Security Cluster. However, the need for a better understanding of social and political constructs on food security still require attention (FAO, 2006).

Questions related to the measurement and classification of household and individual food security status prevailed. Donors and organizations needed to compare assessment findings across and within regions and countries in order to allocate resources accordingly.

By the late 1990s and early 2000s, research into how to quantify and classify the food security status of disaster-affected individuals and households was undertaken, predominantly in rural contexts. Organizations such as the Food Security and Nutrition Technical Assistance (FANTA) project developed methodologies fit for humanitarian

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<sup>9</sup> A commonly used definition of resilience is 'the ability of groups or communities to cope with external stresses and disturbances as a result of social, political and environmental change' (FAO, n.d.:1).

contexts, such as food consumption scores and household dietary diversity scores. These enabled practitioners to assess and monitor the food security status of individuals and households and to draw comparisons across countries and regions.

Comparative analysis within and across counties and regions was further supported by the development of the integrated phase classification (IPC). Originally developed to better understand the food security situation across Somalia, the IPC tool is a standardized scale that integrates food security, nutrition and livelihood information into a clear statement about the severity of a crisis and implications for humanitarian response. Despite the focus on food security, the severity indicators include water access, market function and health status. The IPC has been applied globally and through its consultative methodology, enables analysis and dialogue relating to classification status and responses, prompted by a strategic response framework that is aligned to severity status (FSNAU, 2009).

The importance of food security to the world's population has led to countless international conventions, declarations, compacts and resolutions. According to Shaw (2007), more than 120 have been addressed on various issues relating to the right to food since the League of Nations was founded in 1948 when the right to food was first recognized. Commitments made by United Nations member states include but are not limited to the following.

- The World Food Summit (WFS), in Rome in 1996, when 182 governments committed 'to eradicate hunger in all countries, with an immediate view to reducing the number of undernourished people to half their present level no later than 2015' (FAO, 2006: 1).
- The millennium development goals (MDGs), established in 2000 by United Nations members, which includes among its targets 'cutting by half the proportion of people who suffer from hunger by 2015' (Ibid.).
- The zero hunger challenge, launched by UN Secretary-General Ban Ki-moon in 2012.
- The SDGs, which build on the work undertaken by the MDGs. SDG 2 wants to 'end hunger, achieve food security and improved nutrition and promote sustainable agriculture'.

However, despite the various commitments and progress made in achieving them, the fact remains that an estimated 793 million people are undernourished globally. This is a reduction in 167 million over the last decade, with 216 million fewer people undernourished than in 1990-92 (FAO, IFAD, and WFP, 2015). Recent surges in food prices have had a significant impact on food security and child mortality, resulting in a '50 to 200 percent increase in selected commodity prices, driven 110 million people into poverty and added 44 million more to the undernourished' (Nellemann et al., 2009: 6).

### 2.2.5. From food aid to market support interventions

Humanitarian crises can severely affect food security through market function, food availability and access and market performance. This impact, including the effects of conflict and food price rises on food security, is well documented (Nellemann et al., 2009; FAO, IFAD, and WFP, 2015). Countries in conflict and post-conflict situations tend to be food insecure (FAO, IFAD and WFP, 2015), more so in countries that are net importers of food, due to their heavy reliance on the transport of commodities which can be hazardous, and the disincentives farmers face to invest in agriculture due to the lack of stability (Ibid.).

Following the Second World War, food aid was seen as an answer to food insecurity. At this point in time, food aid was tied, meaning 'aid which is, in effect, tied to the procurement of goods and/or services from the donor country and/or a restricted number of countries' (Jaspars and Leather, 2005). In 2004, the scale of tied food aid was significant with 74 percent of food aid tied, 12 percent were triangular transactions (purchase in neighbouring countries) and 14 percent were local purchase (Ibid.). Two types of food aid prevailed: project (distributed to households via programme activities such as food for work, or whereby commodities are sold or monetized to raise funds for poverty reduction and food security initiatives) and programme (bilateral: government to government).

Between the 1970s and 1990s literature was published on the disincentive effects of food aid in a number of case study countries including India and Ethiopia. One such example from India, a country that received the largest historical share of food aid up to 1971 and highly studied had as a key finding 'food aid lowers domestic food prices, does not encourage adequate agricultural policies and thus, decreases domestic food production' (Iseman and Singer, 1977). In a paper that researched existing empirical evidence on the unintended consequences of food aid at both a micro and meso-level, Barrett and others (2006) highlighted the importance of a better understanding of the context in which food aid is applied. The paper identifies contexts in which more harmful effects are more likely to occur, relating to timeliness, targeting, and local market integration with factors including national, regional and global markets (Barrett, 2006).

Organizations such as Oxfam advocated for change in the way food aid was provided, underlining the importance of appropriate responses utilizing local markets where possible. Humanitarian food security and livelihood specialists Jaspars and Leather outlined the problems associated with tied food aid, advocating for change prior to imminent World Trade Organization (WTO) and Food Aid Conventions (FAC) negotiations.<sup>10</sup> According to Jaspars and Leather (2005), such problems included but were not limited to the following.

- **Contravening standards:** In many cases, tied food aid breached Sphere Standards that stipulated the importation of food only when there was a country deficit or no practical possibility of moving available surpluses into the disaster affected area.
- **Higher costs:** Tied direct food aid transfers were on average, 50 percent more expensive than local purchase, and 33 percent more costly than procurement of food in third countries.
- **Market distortion:** Evidence indicated the negative impact food aid had on commercial imports in recipient countries, especially long-term food aid which saw increases in imports by recipient countries of commodities supplied as food aid.
- **Monetization and market distortion:** Although poorly monitored and evaluated, monetized tied food aid was seen as incurring market distortion on the basis of it not being targeted. The scale of monetization was significant; in 2002 about 50 percent of all project food aid through NGOs was monetized.
- **Poor timeliness of assistance:** With food purchased in the US taking up to 4-5 months to arrive in the recipient country, there were serious implications for populations dependent on food aid in the early phases of an emergency. Consequences of such delays included higher rates of malnutrition, mortality, and the adoption of damaging coping strategies.
- **Cultural appropriateness and depletion of entitlement value:** The cultural appropriateness of tied food aid commodities was questionable in some locations. In some cases it resulted in recipient populations being unable/ unaware of preparation methods and/or selling or the food to purchase other foods and/or other items or services (such as milling). This rendered tied food aid an inefficient way of meeting food needs.
- **Cereal domination:** Due to the domination of cereals, food aid rations may be nutritionally inadequate, as pulses, oil, and blended foods were especially difficult to resource.
- **Milling and fortification:** Tied food aid was frequently unprocessed or unfortified. This added logistical and cost implications for recipient households who had to make their own milling arrangements.

The provision of cash assistance (to enable households to meet their own food needs, utilizing local markets should they be functioning) and/or local and regional purchase of food were proposed as alternatives to food aid, context depending (Jaspars and Leather, 2005).

<sup>10</sup> At this point, food aid was not subject to tight disciplines under the WTO agreement on agriculture and the FAC had not been effective in regulating the provision of food aid, lacking a binding enforcement mechanism and dispute settlement body. It was hoped that the WTO, a widely accepted international legal instrument, could provide an adjudication process restricting the abuses of food aid, facilitating food aid in legitimate circumstances (Jaspars and Leather, 2005).

The response to the 2004 Indian Ocean tsunami provided organizations with an opportunity to pilot cash assistance as a humanitarian response tool, predominantly in food security and livelihoods. A finding from the Tsunami Evaluation Coalition indicated that functioning markets allowed cash recipient affected populations to meet their own priority needs, rather than meeting needs envisioned by the humanitarian agency (Cosgrave, 2007). The potential of cash as a tool to meet humanitarian needs, especially in food security and livelihoods led to a series of pilot programmes by humanitarian organizations, including WFP.

In October 2005 and January 2006 WFP Sri Lanka undertook an International Food Policy Research Institute (IFPRI)-evaluated pilot project to assess the potential of cash transfers to meet household food security in an emergency context. A comparative analysis of household expenditure and consumption patterns in cash-receiving and food-receiving households over a three-month period was undertaken. In summary, the findings indicated: 'In areas where markets were functioning and accessible, cash transfers were more cost effective and preferred by beneficiaries. Overall when households did receive cash, they diversified their diet. They spent more on dairy products, meat, packaged foods, and non-food essentials such as clothing and footwear, and they bought cereals with a higher market value than the ones supplied by WFP' (Mohiddin, Sharma, and Haller, 2007).

Learning from the tsunami response and subsequent disasters in which cash assistance was utilized has led to a significant body of learning and evidence related to the contexts in which cash is an appropriate, efficient assistance tool, especially in the field of food security (Bailey and Harvey, 2015). This includes a DFID-commissioned publication entitled *State of evidence on humanitarian cash transfers*. This document provides a summary of the evidence base on humanitarian cash transfer programming, outlining the types of evidence on cash transfers, findings on key issues and gaps. It highlights the role of markets in contributing to the effectiveness of meeting needs, stating: 'Markets need to be functioning or able to recover quickly enough that an injection of cash will prompt traders and shopkeepers to make goods available' (Ibid.: 3). The document also indicates the potentially positive, but poorly documented, role CTPs can have on markets through multiplier effects. The document cites a cash intervention in Malawi, which found that 'for every dollar transferred, it passed through an average of 2 to 2.45 economic agents or individuals in the local area before leaving it' (Ibid.: 4).

Therefore the actual and potential role of a market actor or service provider playing a more visible and direct role in achieving programme objectives has been brought to the forefront by emergency cash programming, especially in food security and livelihoods. Although all humanitarian programme decisions should include a degree of market analysis, cash programming has brought this relationship to the forefront (Sivakumaran, 2012). In fact, the demand for information sharing related to markets in emergencies has resulted in an online discussion group, *Markets in Crisis*.<sup>11</sup>

This realization has led to the development of numerous market analysis tools specifically for humanitarian contexts and pertinent to the identification of both cash and in-kind responses. These tools including the emergency market mapping and analysis toolkit (EMMA) developed by Oxfam and IRC and the rapid assessment for markets (RAM) developed by the Federation of the Red Cross and Red Crescent. Although these tools can be used for non-food items, they were developed at a time when humanitarian market analysis was dominated by the food security and livelihoods sector. Despite the more recent application of market analysis tools to define water, sanitation and hygiene (WASH) and shelter programmes, both clusters are in the process of appraising how market support interventions can be used to cover WASH and shelter needs. Sector-specific challenges and opportunities regarding the use of market-based programming have yet to be addressed before these tools can be generalized (Dewast, 2016; Global Shelter Cluster, 2016; Juillard and Opu, 2015).

Fairly recent innovation in fighting transitory food insecurity has involved applying learning from social protection programmes that have been critical in fostering progress towards hunger and poverty targets in a number of developing countries such as Brazil. The Hunger Safety Net Programme in Kenya provides an example where predictable, targeted short-

<sup>11</sup> This group can be found at: <https://dgroups.org/dfid/mic>.

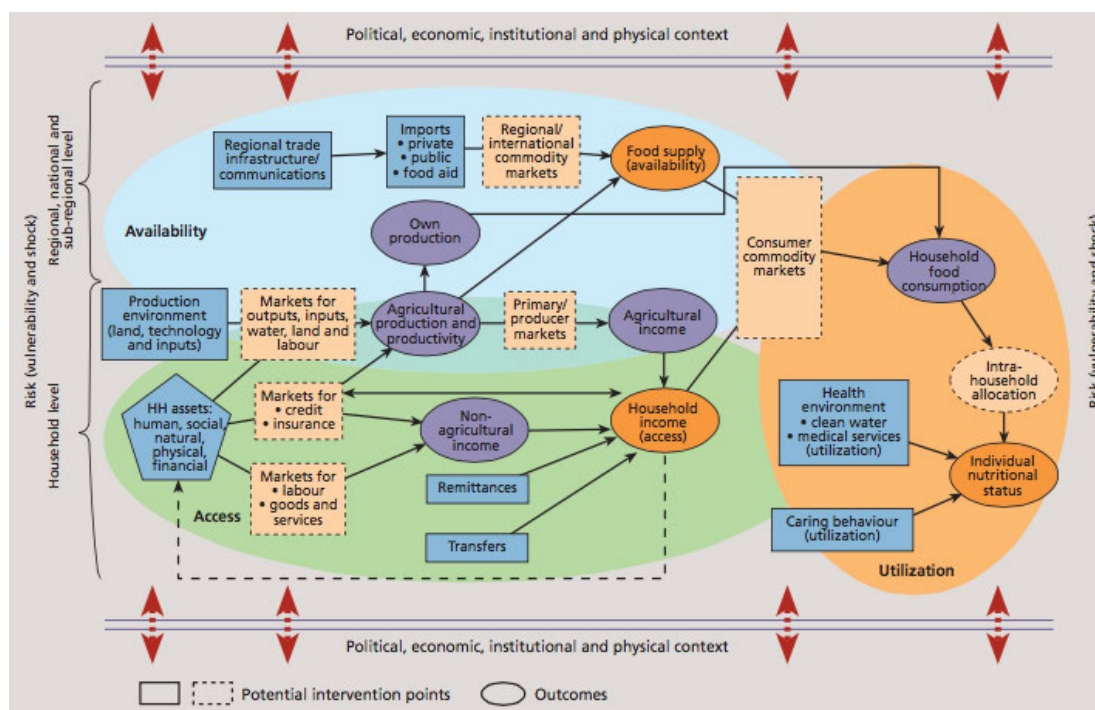
term cash assistance is provided to meet the transitory food needs of populations. The predictability of assistance enables better market preparations and pre-positioning of commodities and services. Innovation continues in the form of humanitarian assistance ‘piggy backing’ existing social safety net programmes in disaster-affected countries to provide vulnerable disaster affected households with assistance, food and non-food. An example includes WFP and UNICEF linking emergency cash programmes to the national social protection programme in the Pantawid Pamilyang Pilipino Program (4Ps) following typhoon Haiyan in the Philippines (Smith, 2015).

### 2.2.6. The links between markets and food security

With the majority of the world’s population reliant on markets for their food, or for the inputs to produce food (WFP, 2009; Nellemann et al., 2009), the link between markets and food security cannot be denied. Markets are essential for achieving food security as they enable the exchange of goods and services, responding to the demands of their consumers (WFP, 2009). Market systems are critical as they determine food availability and access, playing a vital role in averting or mitigating hunger by adjusting to shocks and reducing risks (Ibid.). It makes sense, therefore, to work with markets to alleviate hunger and food insecurity following a shock.

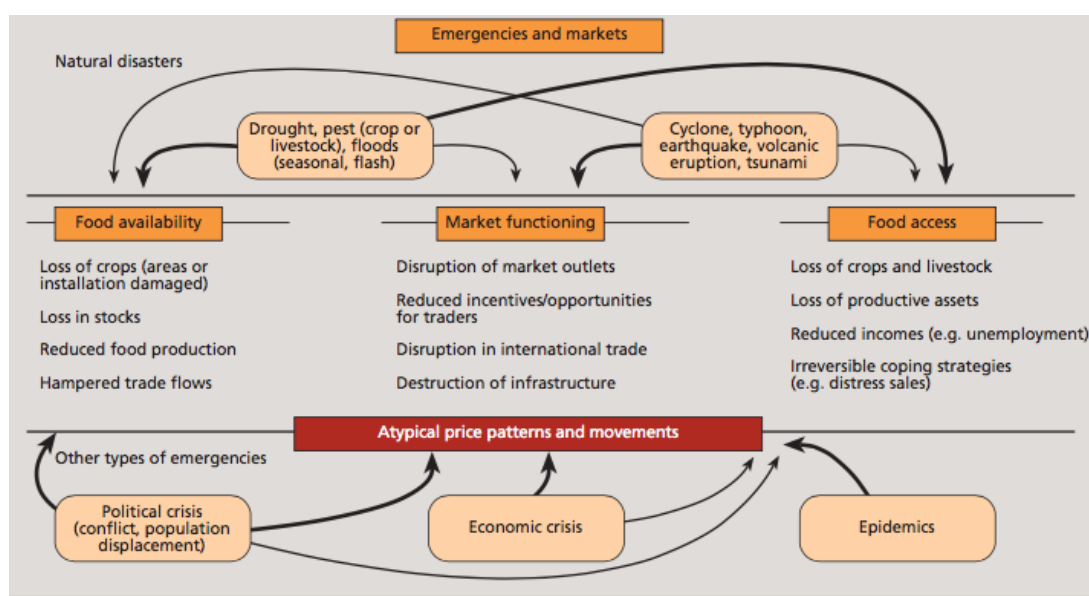
Figure 2 indicates the complex relationships between household assets and livelihood activities, markets and external factors. The diagram also illustrates where markets play a role in influencing key food security determinants. As illustrated, the majority of factors that influence livelihood strategies and market functioning are linked to the economic, institutional, political and physical context, which are also a major source of crises, such as natural and human-induced disasters, ranging from earthquakes, epidemics and conflict to high food prices (WFP, 2009).

**Figure 2: Framework for food security analysis**



Source: WFP (2009: 58)

As indicated in Figure 3, the ability of markets to play a positive role in alleviating hunger and food insecurity can be hindered by emergencies (WFP, 2009). However, the impact of the crisis on market actors themselves and the key functions of a market such as responding to demand and supply, price-setting mechanisms and the distribution of goods is often overlooked by humanitarian organizations (Ibid.).

**Figure 3: Emergencies and markets**

Source: WFP (2009: 108)

To understand any attribution or linkage between food security, market access and performance and humanitarian crises, it is fundamental to understand the nature of household food security and poverty. We need to consider whether households suffer from chronic poverty/food insecurity (caused by a number of internal and/or external factors) or if food and economic insecurity is a transitory problem (Diaz-Bonilla, 2013). An understanding of causal pathways to food and nutrition security and their linkage to market systems is vital in identifying appropriate responses, creating a set of complementary activities, some of which may not necessarily be classified as traditional food security or nutrition interventions (Levine and Chastre, 2011). This reflection represents significant implications for this research, in which it is assumed that there is a direct relationship between market access and food security (see Section 3.2 Assumptions for more information).

The provision of complementary activities such as cash assistance to stimulate demand for food items can result in failure of the overall intervention objectives if households have a more pressing and immediate need that is not related to food, or if there are unforeseen changes to the context, such as a deterioration of the security situation. The provision of vouchers (value and commodity) linked to specific traders is a strategy used to enforce the consumption of food items of a specific quality or value. However, in cases where voucher contracted shops are too far or food is not a significant priority, households have been known to exchange vouchers for cash, or sell voucher to acquire items, as was the case on a WFP programme in Lebanon (WFP, 2014). Therefore, humanitarian organizations, through their needs assessments and monitoring, aim to understand affected household needs, priorities and 'willingness to pay,'<sup>12</sup> in the instance that cash assistance be provided (ERC, 2015).

<sup>12</sup> 'Willingness to pay': This is an estimate of future expenditure requirements made up of historic costs, and what people would be willing to pay given a set amount of 'cash' at their disposal' (ERC, 2015:9).



## 3. THE ANALYTICAL FRAMEWORK

### 3.1. MARKET-BASED PROGRAMMING FRAMEWORK

Markets are a central element to the lives and livelihoods of most of the world's population, both as a means to get access to essential commodities and services and to gain an income through the selling of production or labour. Markets do not necessarily represent a specific physical space but rather the structure or system, formal or not, in which buyers and sellers exchange commodities, services or labour in exchange for cash or other goods or services. A market system is a network of people, trading structures, and rules that determines how a particular good or service is regulated, produced and accessed. As the EMMA toolkit suggests, a market system comprises many market actors, buyers and sellers supported by infrastructures and services, and interacting within a trading environment shaped by institutions, rules or norms. Market systems are not geographically constrained and can operate across borders.

Markets are dynamic by nature and so is the market terminology within the humanitarian sector. As the Oxfam and WFP framework of approaches to market-based programming (Oxfam and WFP, 2013) is currently being revised, there is no broadly used and accepted definitions of market support intervention. In addition, there is currently no formal categorization of market support intervention or of market support activities. This is mostly because supporting markets as an indirect way to support crisis-affected population is a relatively new area for humanitarian actors (Oxfam and WFP, 2013).

For the purpose of this evidence synthesis, we have therefore conceptualized and defined as per Figure 5 the different types of market-based programming. Market-based programming is the practice of working through and supporting local markets (Oxfam and WFP, 2013).

**Figure 4: Market-based programming****Market sensitive approaches**

These are projects that take into consideration the market context in their design and implementation. As all projects (either delivered in-kind, through cash or vouchers or advocacy-orientated) have an impact on markets and their wider political and institutional environment, they should all aim at adopting a market sensitive approach.

Examples of programmes that are solely market sensitive include: the provision to households of cash, vouchers and in-kind via local procurement. In these cases, market analysis indicates the suitability of the response without any financial or material support to specific market actors.

**Market support interventions**

Sectoral or multisectoral in nature, these are projects that include activities to support existing market systems. This is done by supporting specific, targeted market actors, infrastructure, service providers or elements within the prevailing market environment. The primary objective of these market support activities is to enable disaster-affected households to meet their basic needs. Market support activities are implemented alongside sectoral or multisectoral activities to enable the achievement of project results. These projects tend to be implemented during preparedness, relief and recovery timeframes.

Project examples:

- CTP combined with activities to support traders.
- In-kind food aid purchased from local producers receiving support from the project
- Vouchers or cash grants to access water when there is support to water vendors to increase water quality
- Rehabilitating a road to allow access to a market place

**Market system approaches**

Implemented predominantly as development programmes, market systems approaches address the underlying causes of poor performance in specific markets that matter to people living in poverty, in order to create lasting changes that have a large-scale impact. It also includes developing non-existing market systems or the formalization of the informal ones.

Project examples:

- Improve the incomes of poor rural households by helping small-scale livestock farmers gain better access to markets, information, veterinary drugs and services
- Developing pro-poor financial markets
- Value chain development project
- Making markets work for the poor approaches in urban and rural context

Source: The authors

Market support interventions are not a humanitarian sector as such; but rather a cross-cutting approach that consists of supporting market actors, service providers or infrastructure to improve the situation of a crisis-affected population. Market support interventions can be included in post-crisis responses as well as in projects aiming at long-term social change.

In humanitarian settings, market support interventions aim to improve the situation of the crisis-affected population by providing support to critical market systems these people rely on for essential goods, services or income. After a shock, market support interventions aim at recovering, strengthening or developing the capacity of market actors, services and infrastructures critical to meeting and responding to the needs of affected people. Market support activities are embedded in market support interventions that could look at covering multiple needs or sector-specific needs be such as food security, livelihoods, WASH and shelter. This evidence synthesis will only include market support activities embedded in market support interventions that are aiming to cover food security needs or to cover multiple needs including food security.

Market support activities are people centric, looking at how communities are using and accessing markets to cover their needs and supporting those connections. By doing so, market support activities will not necessarily target the most vulnerable people or those most acutely affected by the crisis in terms of food insecurity. Market support activities will rather target the market components that will have the most effect on restoring or improving affected population pre-crisis situation. Those activities are aimed at having a knock-on positive outcome for the poor and marginalized.

Market support activities can either target market chain actors or market system services and infrastructures.

- **Support to market chain actors across market system(s).** The support can be provided in kind, through financial support, via skills development or can take the form of services (or even information) delivery for market chain actors. Market chain actors here should be understood as all who sell and buy the product or the service so it ultimately become available for the consumer. As such, market chain actors can be: importers, wholesalers, traders (of all size from large retailer to petty traders).

Activities to support market chain actors include but are not limited to:

- distributing grants to market actors to restore, strengthen or develop their businesses
  - in-kind distribution of commodities to market actors so they can restock
  - in-kind distribution of materials to market actors so they can rehabilitate their shops
  - skills development for market actors so they can restore, strengthen or develop their businesses
  - sharing information about licensing process with market actors so they can strengthen or develop their businesses
  - facilitating access to credit by providing a guarantee of demand through an upcoming emergency project relying on local markets
  - offering physical storage place to market actors
  - rehabilitating a road to allow access to the physical market place for the market actors
  - offering transportation services to market actors.
- **Support to market services and infrastructure.** Market services and infrastructure allow the market system to function. They represent entities including financial services, transportation, roads and storage. The support can be provided in kind, through financial support or via skills development for those actors who are providing services and infrastructures to the market system. As several market systems often share common services and infrastructures such as transportation services or storage facilities, these type of activities could impact several market systems (Oxfam, 2015).

Market support activities targeting market services and infrastructures include but are not limited to:

- providing grants or in-kind material to the owner of storage places so the storage capacity can be restored, developed or strengthened
- providing grants or in-kind material (including fuel) to transporters so they can restore, develop or strengthen the transportation services they offer to the market actors
- developing the understanding of financial service providers of the need of the market actors in terms of access to credit
- facilitating the circulation of key information to transporters, owner of storage places or financial service providers so they can restore, develop or strengthen their services delivery.

These activities can also be implemented in combination with each other, and can be summarized as above. For the purpose of this review, market support intervention in the aftermath of a crisis will not include macroeconomic interventions to promote economic recovery, such as fiscal and monetary policy or trade policies and institutions.

Market support interventions have been implemented across contexts, including in access and security challenged environments. For example Mercy Corps implemented market support activities in South Sudan (Juillard, 2016). In those environments, remote management can be chosen as an implementation model. Remote management 'relies upon host-nation personnel to undertake ground-level activities while enabling certain elements of management, oversight, fundraising and operations to be coordinated from a relatively more secure location' (Zyck, 2012:1). This review will include market support interventions that have been implemented remotely and those which have not.

The objectives and methodologies applied in humanitarian-orientated market responses are not the same as those utilized in market development or market systems approaches. The main differences are in timeframe (these are multi-year programmes aiming for long-term sustainable change), objective (orientated to addressing the root causes of why markets fail to meet the needs of the poor) and target groups (the impact of change is orientated to a wider population group). Such lasting and large-scale change is achieved through interventions that 'modify the incentives and behaviour of businesses and other market players – public, private, formal and informal' on the basis of careful analysis and an understanding of a specific value chain or industry (BEAM website).

There is a growing interest in the humanitarian sector to apply approaches and learning from the markets systems sector. Although this review will not include evidence from the market systems approaches, it appears that there is a lack of robust evidence of the impact of market system programmes, with the majority of evidence in the form of case studies (BEAM website). This is illustrated in the recently developed Building Effective and Accessible Markets (BEAM)<sup>13</sup> evidence map which presents publications that contain evidence of market systems interventions, categorized by intervention type. In developing the evidence map, BEAM undertook systematic searches in which several hundred documents were retrieved and reviewed according to set criteria.

As humanitarian agencies increasingly assess, analyse and reflect on market capacity as part of their situation and response analysis, they are becoming aware of their role as actors within market systems. However, it is questionable if agencies have the capacity to fully understand the implications of their role and humanitarian response actions within market systems and socio-economic and political contexts (Mosel and Henderson, 2015). This is reflected in a recent series of papers from the Overseas Development Institute (ODI),<sup>14</sup> a study by Key Development Services (KDS) in Lebanon reflecting the influence of WFP interventions on dry and processed food markets (KDS, 2014) and by Oxfam in Jordan where NGOs have distorted the water system market reducing the negotiating power and market access of other clients to water trucking services (Wildman, 2013).

Understanding the context within which key market systems and actors operate is vital to understanding the broader implementation context and identifying appropriate responses. As a study of humanitarian interventions in South Sudan highlights: 'The key issues affecting most traders since the start of the crisis are to do with the broader political economy. These are issues that few humanitarian actors understand well, or look at in their market analysis' (Mosel and Henderson, 2015: 21).

The implementation of market support interventions could provide an opportunity for humanitarian actors to better understand their role within this wider context, and attain greater ground in 'doing no harm'. The Nepalese earthquake in 2015 gave rise to a number of discussions on the ability of humanitarian agencies to engage more fruitfully with market development organizations (that have long standing relationships within the private sector) in designing more durable humanitarian responses utilizing existing relationships (Stewart and Gurung, 2016).

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<sup>13</sup> The BEAM website aims to provide 'A space to share knowledge and learning about the role of market systems in reducing poverty'

<sup>14</sup> The ODI project, *Markets in Crisis and Transitions*, is exploring questions related to the intersection of markets, crises and humanitarian action including: How do markets and businesses adapt during crises, and what determines their ability to function through crises? How does humanitarian aid affect markets in crises, and what impact does this have on different households?

## 3.2. THEORY OF CHANGE

The humanitarian sector has started acknowledging the interdependency between local populations and their markets, especially in terms of providing crisis-affected households access and availability to essential commodities such as food<sup>15</sup> and services. In doing so, the humanitarian sector has started developing market support interventions, hence incorporating market support activities within their humanitarian responses (Juillard, 2016:30).

### The rationale

- Market actors play a vital role in enabling crisis-affected households' access to the goods and services they require to ensure their food security.

### Therefore

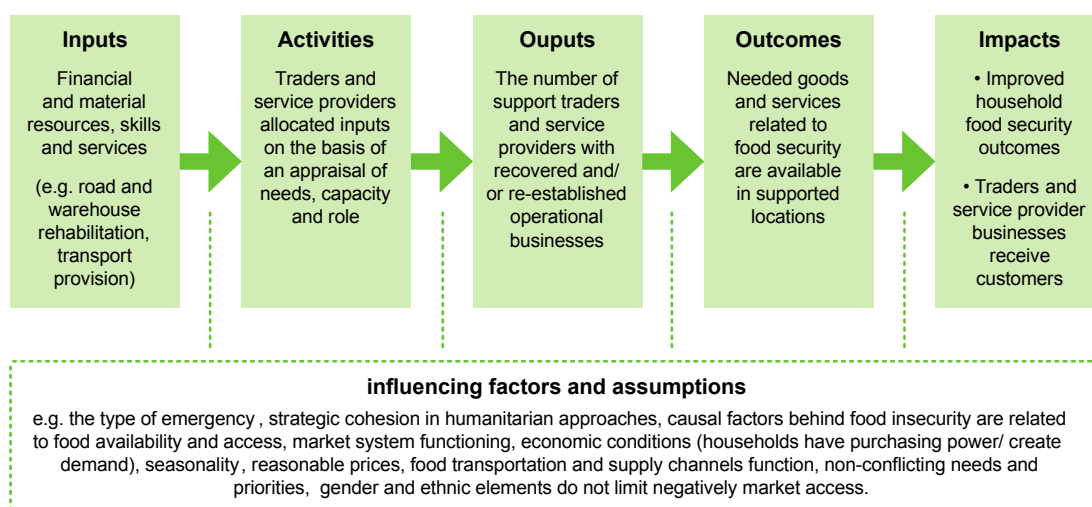
- By supporting market systems vital to the food security of crisis-affected households, the food security of households can be improved.

### However

- A number of assumptions are required including household purchasing power and prioritization of their food security status.

With this in mind, the following theory of change (see Figure 5) includes elements of causality and logical attribution that will be used to review and synthesize the evidence behind the causal links and assumptions.

**Figure 5: Overarching theory of change of the influence of market support interventions on food security**



Source: The authors

Market support interventions outlined in Section 3.1 require similar types of inputs and activities on the basis of a needs analysis ordinarily undertaken by the implementing agency or partner agencies. It should be noted that the term 'trader' is used to broadly represent a range of trading market actors including but not limited to: wholesalers, specialist shops and traders of varying size and locality (local, regional, central rural and urban markets, city centres, ambulatory and so forth).

<sup>15</sup> Evidence for this can be seen in: (a) the number of humanitarian market analysis undertaken as is currently being mapped by the Cash Learning Partnership on their cash atlas (<https://www.cash-atlas.org/login>), (b) publications of market assessment guidelines and tools as listed on the Cash Learning Partnership markets thematic website page ([www.cashlearning.org](http://www.cashlearning.org)) and, (c) the ODI project *Markets in crisis and transitions*, exploring the intersection of markets, crises and humanitarian action.

**Inputs and activities** to enable humanitarian market support interventions tend to include the provision of financial, material resources or skills on the basis of a rapid appraisal of trader needs and capacities. A consideration of the capacity and role of the trader/ service provider is undertaken to ensure that crisis-affected households are likely to utilize their services. Humanitarian organizations will target market actors engaged in providing goods and services related to food security, generally speaking traders.

**Outputs** of humanitarian market support interventions tend to be reported in the following manner: ‘The number of traders and/or service providers that have utilized the support provided and are operational.’ The ability of traders and service providers to be operational and open for business following the provision of resources carries a number of assumptions such as favourable conditions including their security and safety in doing so, and the reliability of the supply chain for goods.

**The outcomes** assume household demand for food items of sufficient quality and quantity required to ensure and maintain household food security. Market actors respond to effective demand and not a humanitarian organizations’ understanding of the needs of the affected population (ERC, 2015, WFP, 2015). Outcomes can include: traders and service provider businesses have a suitable range of services and goods related to food security available for purchase by crisis-affected households.

**Impacts** illustrate the final result of an intervention on household food security, which is the measure to demonstrate the success of the activity. This theory of change makes a number of assumptions here, one of the most significant being that households will visit traders and service providers to access the commodities and services they require in order to meet their food security needs. This assumes purchasing power and effective demand<sup>16</sup> by households, which in turn assumes a prioritization of food security needs. Market support interventions will result in the following impact: crisis-affected households report an improvement in food security status and supported traders and service provider businesses receive customers.

Status improvement in food security can be measured using methodologies that relate directly to food consumption, as well as a number of methodologies that take a broader perspective of household coping strategy activities, access and behaviour. The following list includes methodologies including, but not limited to, commonly used indicators in humanitarian contexts:

- household or individual dietary diversity score<sup>17</sup>
- food consumption score<sup>18</sup>
- self-assessed measure of food security<sup>19</sup>
- coping strategy index (CSI) and related reduced coping strategy index<sup>20</sup>
- a common coping strategy in food insecure households is the reduction of meal frequency, the quantity and quality of food consumed
- access to credit and markets (physical and social)

<sup>16</sup> Effective demand refers to the willingness and ability of consumers to purchase goods at different prices. It shows the amount of goods that consumers are actually buying – supported by their ability to pay ( [www.economicshelp.org](http://www.economicshelp.org)).

<sup>17</sup> Household food access is defined as the ability to acquire a sufficient quality and quantity of food to meet all household members’ nutritional requirements for productive lives. Household dietary diversity, defined as the number of unique foods consumed by household members over a given period, has been validated to be a useful approach for measuring household food access, particularly when resources for undertaking such measurement are scarce (FANTA project).

<sup>18</sup> The food consumption score (FCS) is a composite score based on dietary diversity, food frequency, and the relative nutritional importance of different food groups. The FCS is calculated using the frequency of consumption of different food groups consumed by a household during the seven days before the survey. Scores are clustered into three groups; the results of the analysis categorize each household as having either poor, borderline, or acceptable food consumption (SPRING, 2008).

<sup>19</sup> Although frequently used, these are household or individual self-assessments of current food security status from within in a recent recall period that takes into account a change in access or activity over time. Self-assessments tend to be highly subjective in nature and potentially open to manipulation.

<sup>20</sup> The CSI tool measures what people do when they cannot access enough food, asking a series of questions about how households manage to cope with a shortfall in food for consumption, providing a numeric score. (SPRING, 2003).

- proxy indicators that are defined on multiple factors, including specificities of the market support intervention, livelihoods of the affected population and seasonality. These include but are not limited to: status of livelihood activity, level and type of non-food item consumption and purchasing patterns (in terms of purchasing frequency and also frequented traders/services).

### Assumptions

As highlighted in Section 2.2.2 above and illustrated in Figure 2, the dimensions of food security and their causal factors are complex, dynamic and influenced by a number of elements including, but not limited to, markets. Therefore, improvements in household food security can be the result of synergies between different interventions and pre-conditions beyond the influence of the actual intervention. This means that the wider intervention context – including additional humanitarian activities,<sup>21</sup> gender, household priorities, household purchasing power, availability of appropriate food, market utilization/access and ethnicity – can also have an influence on household food security. In short, attribution of a positive outcome in household food security (or any other humanitarian outcome) to market support interventions may be hard to isolate and therefore, prove.

As can be seen in the causal chain above, one of the significant assumptions is that of 'use of service'; meaning that the crisis-affected households will utilize the supported traders and service providers to purchase a range of food items and access key services. Additional associated assumptions therefore relate to household purchasing power and very importantly, the desire to meet household food needs as opposed to other needs such as shelter or livelihood requirements.

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<sup>21</sup> An example being the provision of rental or school fees to households can 'release' household income for other expenses, including food.

## 4. METHODS

### 4.1. INCLUSION AND EXCLUSION CRITERIA

The following sections define the populations, interventions, comparisons, outcomes, and study types (PICOS) in order to specify the inclusion and exclusion criteria of the literature.

#### 4.1.1. Populations

This evidence synthesis focuses on interventions that attempt to benefit the food security of people affected by humanitarian crises (i.e. crises where actors calling themselves 'humanitarians' are deployed) and do so by including activities supporting the market. The geographical scope is global. As mentioned, such crises can have one or several direct origins: internal or international conflict, ethnic cleansing, genocide, large-scale epidemics, natural disasters such as earthquakes, floods, tsunamis, droughts, economic shocks and inflation or a mix of several events. The nature of the crisis will not act as an inclusion/exclusion criteria. **The literature covering market support interventions taking place in locations and/or at a time where no humanitarian actors were present will hence be excluded from this evidence synthesis.**

The populations of interest in the studies we will include are:

- the market actors – targeted directly by the market support activities
- the crisis-affected population indirectly affected by the market support activities.

When mentioned by the studies included, the crisis-affected population will be disaggregated into characteristics such as:

- age
- gender
- disability
- affected by a chronic disease
- pregnancy status
- specific status according to the Geneva conventions and their additional protocols (refugees, internally displaced persons)
- ethnic and religious belonging if mentioned by the studies and relevant to the type of context (for example in cases where such groups are politically marginalized by those in power)
- level of income
- living distance to the physical market place.

When mentioned by the studies included, the market actors will be disaggregated into characteristics such as:

- age
- gender
- disability
- affected by a chronic disease
- literacy
- pregnancy status



- specific status according to the Geneva conventions and their additional protocols (refugees, internally displaced persons)
- ethnic and religious belonging if mentioned by the studies and relevant to the type of context (for example in cases where such groups are politically marginalized by those in power)
- volume of trade
- type of goods or services offered
- type of customers.

The analysis will distinguish the intended beneficiary group and the overall population, in particular if the studies included display information on economic multipliers for which it is not possible to determine distribution.

### 4.1.2. Interventions

Our research will include interventions that are specifically looking to improve the food security situation of crisis-affected populations and those looking at reducing negative copying mechanisms. We will not use a restrictive definition of negative copying mechanisms but will include all interventions that state that they intend to reduce negative copying mechanisms. An intervention will be included if it features several components including at least one looking at either improving food security or reducing the copying mechanism.

The research will include literature about market support interventions designed by any actors (NGOs, UN agencies, Red Cross/ Red Crescent movement, private sector actors<sup>22</sup> and government actors) in the aftermath of a 'humanitarian crisis' in order to indirectly benefit affected people. Even if the majority of humanitarian projects have a maximum duration of 12 months (for instance in alignment with the European Commission funding regulations) projects that eventually lasted longer will be included. It is indeed common practice to extend ongoing projects because the situation has not improved or has deteriorated.

The type of activities included will be:

- activities to support market chain actors
  - distributing grants to market actors to restore, strengthen or develop their businesses
  - in-kind distribution of commodities to market actors so they can restock
  - in-kind distribution of materials to market actors so they can rehabilitate their shops
  - skills development for market actors so they can restore, strengthen or develop their businesses
  - sharing information about licensing process with market actors so they can strengthen or develop their businesses
  - facilitating access to credit by providing a guarantee of demand through an upcoming emergency project relying on local markets
  - offering physical storage place to market actors;
  - rehabilitating a road to allow access to the physical market place for the market actors
  - offering transportation services to market actors

<sup>22</sup> The private sector here is defined as all for-profit businesses that are not operated by the government, ranging from small community-based businesses to national and multinational corporations.

- activities to support actors providing market services and infrastructures
  - providing grants or in-kind material to the owner of storage places so the storage capacity can be restored, developed or strengthened
  - providing grants or in-kind material (including fuel) to transporters so they can restore, develop or strengthen the transportation services they offer to the market actors
  - developing the understanding of financial service providers of the need of the market actors in terms of access to credit
  - facilitating the circulation of key information to transporters, owner of storage places or financial service providers so they can restore, develop or strengthen their services delivery.

All other activities will be excluded.

Market support interventions can be implemented prior to a shock to strengthen market systems so they can better serve people if a crisis hits. Pre-crisis interventions could influence household food security post crisis. Similarly, interventions aimed at long-term social change may also influence household food security in a post-crisis situation. While not denying the potential for these interventions, for the sake of a homogeneous final analysis, **studies covering disaster preparedness or long-term social change interventions will not be included.**

### 4.1.3. Context

Iterative coding will be used and the content of the literature eventually included will dictate the types of comparisons that can be made. However, we expect the type of context in which market support interventions are designed, implemented and evaluated to be of significant importance. We intend to disaggregate evidence according to contextual data such as:

- if activities take place in an urban or rural environment
- if affected people live inside or outside a camp
- the magnitude of physical infrastructures caused by the crisis
- the number of market actors existing before the crisis
- the type of actor implementing market support interventions: national NGO, international NGO, UN agency, member of the Red Cross/Crescent movement, private sector actor, state agency
- the chronology of the crisis.

Comparisons of contextual factors will be made as we expect them to have an influence on market support intervention and ultimately on the crisis-affected population.

### 4.1.4. Outcomes

Documents that identify any types of outcomes measures will be included. These include economic, physical, environmental and social outcomes.

Studies analysing how markets function but not evaluating market support interventions will not be included.

### 4.1.5. Study types

We will include studies issued from 1990 onwards since there have been no such interventions conducted before this date. To our knowledge, market aware interventions in humanitarian crises really started to take place in the aftermath of the 2003 Bam earthquake in Iran but we do not want to exclude the possibility of some market support activities happening before this. We chose 1990 because the literature accounting for humanitarian

crises is extremely scarce before this date. The 1990s did indeed see a massive change in the way humanitarian assistance was implemented, with the creation of United Nations agencies (such as the Office for the Coordination of Humanitarian Affairs (OCHA)) and with the development of humanitarian evaluations in the aftermath of the 1994-95 Rwandan genocide (Borton, 1996).

We will systematically search studies published in English and include studies published in French if they arise.

Both quantitative and qualitative evidence is eligible for inclusion in the review. For quantitative research, we will only include studies that apply a research design able to minimize bias in the attribution of identified effects to the applied intervention. These can include experimental designs, for example randomized control trials (RCTs), quasi-experimental designs (e.g. propensity score matching), and project evaluations. The defining criterion across these designs is the availability of two data points (before and after data). However, it should be noted that we expect to find very few of those after a first round of database searches.

For qualitative research, we will favour studies that fulfil the three key criteria below for inclusion:

- transparently report and describe the research design (including research instruments)
- transparently report on the empirical data collected
- report findings that are based on the collected data with a clear link between reported data and findings.

This can include, but is not limited to, the following designs: ethnographies, case studies, qualitative evaluations and community surveys, for example.

Most of the studies we expect to find do not provide information on how data was collected or analyzed. See for example the Catholic Relief Services (CRS) programme *Support to the Local Tool Market Post-Typhoon Haiyan*. Therefore in the absence of sufficient studies meeting all three aforementioned criteria, other qualitative or mixed methods studies such as the CRS study will be included. We expect that most of such studies will be project evaluations (sometimes with only one data point and no comparison group) that collect data through interviews, questionnaires, surveys and focus group discussions. To be eligible such studies will have to:

- state they are based on data collected from project stakeholders (beneficiaries, implementing agencies, local authorities etc.)
- clearly describe the project's inputs, activities, output and outcomes of the market support interventions.

Academic articles and grey literature such as published and unpublished works and research papers by NGOs, international organizations, government agencies and think-tanks will be included.

Publication types that will be considered ineligible include: personal blogs, commentaries, diaries, opinion pieces, workshop reports, literature reviews, marketing material such as 'life stories' of individual shopkeepers, newspapers articles, magazine articles, guidelines and legal proceedings/court documents.

## 4.2. SEARCH FOR EVIDENCE

### 4.2.1. Potential sources

Potential studies will be identified through discussions with key informants, searches of electronic academic databases (with open and restricted access) using key search terms, and manual searching of institutional websites and certain academic journals.

Backward citation search: the bibliography of each document rated as fit for inclusion will be searched for further studies that may have fallen out of the designed search strings.

Forward citation search: search for all studies citing the included evidence using Google Scholar.

#### Key informants

Through well-established market platforms such as BEAM exchange, the Small Enterprise Education and Promotion Network (SEEP), the Market in Crisis and the Cash Learning Partnership (CaLP) online discussion groups, we have contacted market practitioners representative of the different humanitarian actors and academics active in the field of market analysis and market support interventions. These informants will support the research team with the identification of grey literature that may not be in the public domain and potentially with the circulation of the final research product.

#### The market support interventions advisory board

Some of the key informants have been asked to join an unpaid advisory board. This board will support the research team with the refining of the research question and secondary questions and will review the documents produced. As at 25 March 2016, the board consists of:

**Isabelle Pelly**, CaLP technical coordinator. Isabelle is responsible for the overall strategic technical leadership and technical quality control of CaLP work. Her role also involves leading the CaLP technical advisory group, which comprises representatives of the CaLP global community of practice. Isabelle has a technical background in food security and livelihoods, with specialist skills in market assessment and analysis.

**Gregory Matthews**, deputy director for Cash Initiatives. Gregory is a food security and nutrition specialist with more than 10 years of experience in humanitarian response and coordination. He currently oversees the International Rescue Committee's (IRC's) cash transfer and emergency market analysis efforts, including the promotion and further development of the EMMA toolkit and pre-crisis market analysis (PCMA).

**Nichola Peach**, regional programme policy officer specializing in cash-based transfers and Hien Adjeman, Global Logistics Cluster, will represent WFP.

#### Academic databases

The following academic databases will be searched using the search terms set out in appendix 1:

- Science Direct
- ELDIS (<http://www.eldis.org/>)
- ELLA (<http://ella.practicalaction.org/>)
- PUB Med
- SCOPUS
- Bielefeld Academic Search Engine ([www.base-search.net/Search](http://www.base-search.net/Search))
- Google scholar: according to Haddaway et al. (2015), it is sufficient to only screen the first 500 hits on Google Scholar.

### List of journals to hand search

- Development and change
- Third World Quarterly
- Disasters
- Development in Practice
- Journal of International Development
- Journal of Refugee Studies
- Journal of Development Studies

### Manual search of the following websites

Type of actors	Name	Website
Research Groups	ODI	<a href="http://www.odi.org/projects/2659-markets-crises-transitions">http://www.odi.org/projects/2659-markets-crises-transitions</a>
	Governance and Social Development Resource Centre (GSDRC)	<a href="http://www.gsdr.org/publications/">http://www.gsdr.org/publications/</a>
	Economics That Really Matters	<a href="http://www.econthatmatters.com">http://www.econthatmatters.com</a>
	Food Security Portal by IFPRI	<a href="http://www.foodsecurityportal.org/category/category/evidence-based-research">http://www.foodsecurityportal.org/category/category/evidence-based-research</a>
	IFPRI	<a href="http://www.ifpri.org/">http://www.ifpri.org/</a>
	Abdul Latif Jameel Poverty Action Lab (JPAL)	<a href="https://www.povertyactionlab.org/evaluations">https://www.povertyactionlab.org/evaluations</a>
	Innovations for Poverty Action	<a href="http://www.poverty-action.org/">http://www.poverty-action.org/</a>
	International Initiative for Impact Evaluation (3ie)	<a href="http://www.3ieimpact.org/">http://www.3ieimpact.org/</a>
International Organizations	International Federation of the Red Cross and Red Crescent (IFRC)	<a href="http://www.ifrc.org/en/publications-and-reports/">http://www.ifrc.org/en/publications-and-reports/</a>
	WFP	<a href="http://www.wfp.org">http://www.wfp.org</a>
	United Nations High Commissioner for Refugees (UNHCR)	<a href="http://www.unhcr.org/pages/49c3646c4b2.html">http://www.unhcr.org/pages/49c3646c4b2.html</a>
	World Health Organization (WHO)	<a href="http://www.who.int/publications/en/">http://www.who.int/publications/en/</a>
	World Bank	<a href="http://www.worldbank.org/en/research">http://www.worldbank.org/en/research</a>
International networks	Cash Learning Partnership	<a href="http://www.cashlearning.org/markets/markets">http://www.cashlearning.org/markets/markets</a> <a href="https://dgroups.org/groups/calp/calp-en">https://dgroups.org/groups/calp/calp-en</a>
	Market in Crisis Dgroup	<a href="https://dgroups.org/dfid/mic">https://dgroups.org/dfid/mic</a>
	BEAM Exchange	<a href="https://beamexchange.org/resources/">https://beamexchange.org/resources/</a>
	InterAction led shelter group	Personally maintained list
	SEEP Network	<a href="http://www.seepnetwork.org">http://www.seepnetwork.org</a>
	Microlinks	<a href="https://www.microlinks.org">https://www.microlinks.org</a>
	Building markets	<a href="http://buildingmarkets.org">http://buildingmarkets.org</a>
	Logistics cluster	<a href="http://www.logcluster.org/cashandmarkets">http://www.logcluster.org/cashandmarkets</a>
	ALNAP	<a href="http://www.alnap.org/resources/results.aspx?tag=606">http://www.alnap.org/resources/results.aspx?tag=606</a>
	Humanitarian library	<a href="http://humanitarianlibrary.org/">http://humanitarianlibrary.org/</a>
Practical Action	<a href="http://policy.practicalaction.org/">http://policy.practicalaction.org/</a>	

Type of actors	Name	Website
NGOs	Action Contre la Faim	<a href="http://www.actionagainsthunger.org/search/nod/e/market">http://www.actionagainsthunger.org/search/nod e/market</a>
	Bill & Melinda Gates Foundation	<a href="http://www.gatesfoundation.org/">http://www.gatesfoundation.org/</a>
	Care International	<a href="http://www.care.org/">http://www.care.org/</a>
	Catholic Relief Services	<a href="http://www.crs.org/our-work-overseas/research-publications">http://www.crs.org/our-work-overseas/research-publications</a>
	International Rescue Committee	<a href="http://www.rescue.org/economic-recovery-development-technical-unit-erd">http://www.rescue.org/economic-recovery-development-technical-unit-erd</a> <a href="http://www.emma-toolkit.org">http://www.emma-toolkit.org</a>
	EMMA toolkit	
	Mercy Corps	<a href="http://www.mercycorps.org/research-resources">http://www.mercycorps.org/research-resources</a>
	Oxfam	<a href="http://policy-practice.oxfam.org.uk/publications">http://policy-practice.oxfam.org.uk/publications</a>
	Save the Children	<a href="http://resourcecentre.savethechildren.se">http://resourcecentre.savethechildren.se</a>
	Practical Action	<a href="http://practicalaction.org/markets">http://practicalaction.org/markets</a>
Government bodies	DFID	<a href="http://r4d.dfid.gov.uk/">http://r4d.dfid.gov.uk/</a>
	CIDA	<a href="http://www.international.gc.ca/development-developpement/index.aspx?lang=eng">http://www.international.gc.ca/development-developpement/index.aspx?lang=eng</a>
	Canadian Food Grain Bank	<a href="http://foodgrainsbank.ca/resources/">http://foodgrainsbank.ca/resources/</a>
	ECHO	<a href="https://euaidexplorer.ec.europa.eu">https://euaidexplorer.ec.europa.eu</a>
	USAID	<a href="https://www.usaid.gov/data">https://www.usaid.gov/data</a>

## 4.2.2. Screening process for eligible studies

The key search terms listed in Appendix 1 are defined in relation to our main research question as well as the inclusion and exclusion criteria.

We will develop search strings for each database whether academic or institutional on the basis of these identified key words. We will use Boolean operator 'OR' to link each key aspect to their synonyms, and operator 'AND' to combine several notions. The search strings will consist of four main concepts (and their synonyms): 'market support', 'crisis', 'food security' and 'influence' (see Appendix 1 for a list of their synonyms).

For example: (market OR trader\* OR business\*) AND (disaster\* OR humanitarian OR crisis OR conflict OR emergenc\* OR war\* OR earthquake\* OR flood\* OR tsunami\* OR cyclone\* OR typhoon\* OR drought\* OR epidemic\*) AND (food\* OR calories OR 'Copying Strategy Index") AND (review OR outcome\* OR impact\* OR effect\* OR consequence\* OR evaluation\* OR assessment\* OR lesson\*)

Search strings will first be tested with, and adapted to, the specificities of each database.

Marion Pechayre (MP) will run the searches of academic databases requiring institutional login, and then provide access to titles and abstracts of all articles resulting from the databases searches to the rest of the review team. H  l  ne Juillard (HJ) and Lili Mohiddin (LM) will run all other searches of institutional websites.

All hits will be recorded in Zotero to be able to sort included from excluded hits, record information about the date and source of the search (name of the database or manual etc.)

We will provide the full search strategy used for each database in the appendices of the final report.

The source selection process then happens in two steps. The two main reviewers (LM and HJ) will process steps 1 and 2. They will divide and apply the search hits in two and apply filters 1 and 2 to titles and abstracts. They will then apply filters 1 and 2 to five percent of the

hits scanned by the other and compare their results, debate any differences in exclusion and report on how many disagreements there were and how they were resolved. This will increase rigour in the inclusion/exclusion process and reduce personal bias and interpretation of the data as much as possible.

### Step 1

The first step of the study selection process will screen titles and abstracts, to which filter 1 applies as follows. Filter 1 will exclude the following studies:

- Studies published before 1990
- Studies not in English (or French)
- Studies about activities not implemented in an area where there are humanitarian actors (i.e. actors who call themselves 'humanitarian')
- Studies about interventions not targeting at all market actors, services or infrastructures
- Studies not reporting on interventions aimed at covering food security needs, multiple needs (including food security) or aimed at reducing negative coping mechanisms.
- Studies not reporting on market support interventions outcome

→ record data i.e. number of studies excluded and reason for it (date, language, location or type of intervention)

- Delete duplicates: all articles meeting inclusion criteria after filter 1 will be entered in Zotero (by MP) so that duplicates can be identified automatically.

→ record data (i.e. number of duplicates and number of remaining studies)

### Step 2

The second step of the screening apply filter 2 to full text of studies still included after filter 1. Filter 2 will exclude the following studies:

- Studies covering disaster preparedness type of activities
- Studies analysing how markets function but not covering market support activities
- Studies dealing with macro-economic interventions to promote economic recovery, such as fiscal and monetary policy or trade policies and institutions

→ record data (i.e. number of studies excluded and the reason; number of studies remaining)

Full studies will be downloaded then reviewed by HJ, LM, Rebecca Vince (RV) and Gabrielle Smith (GS).

## 4.2.3. Data extraction

Under the guidance of the main reviewer (HJ), the review team will code studies meeting criteria for inclusion after the processing of filter 2 in order to group and classify them. The main reviewer will read each study meeting criteria for inclusion and fill in the coding sheet (see Appendix 3).

To minimize the risk of personal bias or of missing key information, there will be two rounds of data extraction done by two different reviewers. To ensure continuity in the data extraction the two main reviewers will screen simultaneously a first set of studies (approximately one third) and confront their list of data extracted. The rest of the literature will be divided in two and reviewed first by one of the main reviewers and then by a second reviewer (RV or GS). The data extraction template will be completed by both reviewers and differences debated among the whole group of four reviewers in order to reach consensus on the main points of analysis. If important aspects of some studies remain unclear, the main reviewers could attempt to contact their authors to seek clarifications. If contacted authors do not respond within 10 days, these unclear aspects would either be left outside or underlined as unclear in the final analysis.

Data will be manually entered into a form in MS Excel in order to facilitate comparison and analysis. Reviewers may insert short quotes in order to illustrate important points. These quotes can be sentences or simple words that the reviewers would want to cite *in extenso* (as opposed to use as their own words). These citations will be crucial for the analysis stage and they may be used for the final synthesis writing up.

All data extraction will be copied onto one single word document at the end of the data extraction, so as to be able to use the search word function.

#### 4.2.4. Critical appraisal of included studies

Following the data extraction steps, we will aim to appraise the quality of each single study, following a mixed-methods critical appraisal tool (in Annex 4) developed by Langer, Stewart, and Winters (2014). This tool has three modules: one for qualitative studies, one for quantitative studies and another for mixed-methods studies.

In order to minimize the risk of personal bias, the two main reviewers will independently complete the critical appraisal tool for all studies included. They will then share, discuss and agree the assessment of each document against each of the criteria in order to determine an overall quality score.

There could be two approaches to using the results of the quality appraisal: The first to set aside those studies that are rated critical (i.e. low quality) and not include their outcome data in the analysis (Other contextual and process data would still be included). The second to do the synthesis using the data of all studies included and then discuss the difference in analysis depending on the quality of the studies.

Depending on the overall quality of the studies, we will decide which of the two approaches works best once the critical appraisal has finished.



## 5. DATA SYNTHESIS AND ANALYSIS

Our review uses a mixed methods approach:

If there is enough quantitative evidence we will extract statistical information, calculate effect sizes and conduct a meta-analysis following Borenstein et al (2009) (cited in Stewart et al., 2015). Given our knowledge of the field of market support activities we doubt this will be possible, but if so the help of a statistician (already identified) will be sought.

Qualitative evidence will be synthesized using a thematic approach following Thomas and Harden (2008) as detailed below in Section 5.1.

### 5.1. THEMATIC SYNTHESIS

Since our evidence synthesis aims to answer an empirical rather than a conceptual question, and also since it uses a theory of change analysis to unpack intervention mechanisms and context, we will not use a framework synthesis but rather a thematic synthesis.

As demonstrated by Thomas and Harden (2008), thematic synthesis are somewhat close to meta-ethnographies in their overall approach: both synthesize data from qualitative studies in an inductive way going beyond the primary studies to generate new knowledge; and both do so relying on an identification of key concepts from studies and their translation into one another, i.e. 'the process of taking concepts from one study and recognizing the same concepts in another study, though they may not be expressed using identical words' (Thomas and Harden 2008). Yet our review is focused on the *influence* of interventions as opposed to unpacking a social phenomenon.<sup>23</sup>

Our thematic synthesis will follow three stages:

- coding the data of the included studies
- organizing these codes into 'descriptive themes'
- generating 'analytical themes'.

#### Stage 1: Coding

One reviewer will code all data extracted following the methods outlined in Section 4.2.3. These codes will then be entered into an extraction template to enable the translation of concepts from one study to another. The findings will first be listed independently and debated with the other main reviewer to test their relevance and complement them if necessary. The list of codes after stage one will be documented and provided in appendix of the final evidence synthesis.

#### Stage 2: Organizing descriptive themes

The two main reviewers will then independently group the codes in order to organize them into a hierarchical tree structure. At this stage new codes will be created to encompass the meaning of groups of initial codes. The two reviewers then debate their hierarchical structure and produce a commonly agreed one around the main descriptive themes. At the end of this stage, one of the reviewers produce a first draft summary of the findings across the studies organized by the descriptive themes. The other reviewers will comment on this draft and agree on a final version.

<sup>23</sup> Meta-ethnographies should be used 'when a body of literature is being explored in and on itself, with broader, or emergent, review questions' (Thomas and Harden, 2008).

### Stage 3: Generating analytical themes

At the end of stage two the draft summary of the findings of studies included should be very close to the original findings of the studies included. Additionally, it should not necessarily answer the review question depending on whether included studies directly address this question. During stage three, analytical themes are derived from thematic themes to answer the research question of our evidence synthesis and go beyond the findings of each individual study included in the synthesis.

Each of the two main reviewers will independently revisit the content of descriptive themes in order to infer outcomes of market support interventions for food insecure households affected by humanitarian crises. They will then discuss their findings in order to reach more abstract and analytical themes that can explain the identified descriptive themes. The draft summary is then expanded upon and enriched with an analysis structured around the analytical themes.

## 5.2. AN UPDATED THEORY OF CHANGE

The overarching theory of change for market support interventions designed as a hypothesis in Section 3.2 will be a central element of the synthesis. To update the theory of change the reviewers will transparently extract information on the theory of change of each included study and then configure and aggregate this extracted data.

This review will set out to examine the type and quality of the evidence that supports the theory of change and related assumptions. On the basis of recommendations set out by White (2009) to strengthen the otherwise weak application of a theory-based approach in impact evaluation, six principles to enable the successful application of the approach should be applied, including:

- understand context
- anticipating heterogeneity
- rigorous evaluation of impact using a credible counterfactual
- rigorous factual analysis
- the use of mixed methods.

As can be seen in this protocol document, the authors have embraced and applied these recommendations including the consideration of external contextual factors that may have influenced the outcome of the programme. This includes the following.

- Understanding context, i.e. the social, political and economic setting within which the programme is taking place. As context can influence the impact of a programme (White 2009), the review will take into consideration contextual factors, reducing variations in contextual diversity by grouping evidence according to context. This could include the level of development of the country (low and middle income country), location of the intervention (urban and/or rural) and type of disaster.
- Recurrence of the disaster or additional disaster that affected households and trader behaviour and/or capacity to engage in the implemented programme.
- Any recorded changes in household preferences on the basis of external factors.
- Recorded assistance provided that could undermine the objectives of the implemented programme from Government bodies, NGOs and other actors.

### **5.3. ACCOUNTING FOR HETEROGENEITY**

To account for heterogeneity of the data included, we will use the variables listed in Section 4.1 (depending of those that will be specified in the included studies) to create different sub-groups of studies for which we will compare the outcomes against each other<sup>24</sup>.

While synthesizing the final findings the reviewers will check whether these findings are transferable across different study contexts, or whether they have to be accounted for in relation to specific variables (where the primary studies had made a specific distinction). As much as possible if contextual information is provided in the studies included, it will be taken into account in the final synthesis.

### **5.4. THE ROBUSTNESS OF THE SYNTHESIS' CONCLUSIONS**

In order to assess the quality of the synthesis and included evidence, we will use GRADE and CerQUAL, where applicable.

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<sup>24</sup> Should there be a meta-analysis we will conduct a statistical sub-group analysis and meta-regression to assess heterogeneity.

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# 7. APPENDICES

## 7.1. APPENDIX 1: KEYWORDS FOR THE SEARCH

Concept 1 Market support activities	Concept 2 Crisis	Concept 3 Food Security	Concept 4 Influence
"market support" "market system" "market service" "market infrastructure" "value chain" trader* "financial service provider" transporter*	disaster* humanitarian Crises Crisis ememergenc* conflict* "complex emergenc*" war* referee* IDP displace* migrat* earthquake* flood* tsunami* cyclone* hurricane* typhoon* storm* drought* landslide* catastroph* lenocide epidemic*	"food insecurity" "food security" "food income" "food diversity" "food consumption score" "copying strategy index" "household dietary diversity score" "meals per day" calories food "food frequency" "food basket" "food entitlement" Concept 3 Food Security "food insecurity" "food security" "food income" "food diversity" "food consumption score" "copying strategy index" "household dietary diversity score" "meals per day" calories food	influence* outcome* impact* effect* consequence* evaluation* assessment* lesson* result create

## 7.2. APPENDIX 2: SCREENING GUIDE

Step	What is screened	Reviewer	Exclusion criteria	Action
1	Titles and abstracts of studies collected during initial search and collection of studies	HJ & LM	<ul style="list-style-type: none"> <li>● Studies published before 1990</li> <li>● Studies not in English (or French)</li> <li>● Studies about interventions not implemented in an area where there are humanitarian actors</li> <li>● Studies about interventions not targeting at all market actors, services or infrastructures</li> <li>● Studies not reporting on interventions aiming at covering food security needs, multiple needs (including food security) or aiming at reducing negative coping mechanisms</li> <li>● Studies not reporting on market support interventions outcome</li> <li>● Duplicates</li> </ul>	<ul style="list-style-type: none"> <li>● Record number of studies excluded and included</li> <li>● Note reasons of exclusion: date, language, location, type of intervention, or duplicate</li> </ul>
2	Full text of studies meeting criteria of inclusion after filter 1	HJ & LM	<ul style="list-style-type: none"> <li>● Studies designed for more than 12 months</li> <li>● Studies covering disaster preparedness activities</li> <li>● Studies analysing how markets function but not covering market support activities</li> <li>● Studies dealing with macroeconomic interventions to promote economic recovery, such as fiscal and monetary policy or trade policies and institutions</li> </ul>	<ul style="list-style-type: none"> <li>● Record number of studies excluded and included</li> <li>● Note reasons of exclusion: length of project, disaster preparedness</li> </ul>

## 7.3. APPENDIX 3: DATA EXTRACTION TEMPLATE

This tool has been adapted from Langer, Stewart, and Winters (2016)

Code	Answer	Comments
<b>ADMIN CODES</b>		
<i>Citation of the study</i>		
<i>Region</i>		
<i>Domain of the study</i>	Academia    Grey literature	
<i>Type of study</i>	Journal article    Research report    Evaluation report Conference paper    Book/chapter    Thesis/Dissertation M&E report	
<i>Research question</i>		
<i>Linked studies</i>		
<b>Context codes</b>		
<i>Where was the intervention conducted?</i>	LICs    LMIC    UMICs State country:	
<i>What type of crisis triggered the response?</i>	Internal conflict    international conflict    ethnic cleansing    genocide    large-scale epidemics    earthquakes    floods    tsunamis    droughts    economic shocks    inflation    a mix of several events	
<i>What has been the impact of the crisis on physical infrastructures?</i>		
<i>At the start of the intervention, how long had it been since the crisis happened?</i>	Less than a month    Less than three months    Less than six months Less than 12 months    More than 12 months	
<i>How many sites?</i> <i>Intervention sites?</i> <i>Experimental sites?</i>		
<i>What was the setting?</i>	Rural    Urban    Mixed    Camp	
<i>How many market actors were there before the crisis?</i>		
<b>Population codes</b>		
<i>How many people were targeted by the market support activities?</i>		
<i>Age</i>	Children (3-12)    Youth (12-25)    Adults (25-60)    Elderly (>60)    Mixed	
<i>Gender</i>	Male    Female    Both	
<i>Literacy</i>	Literate    Semi-literate    Illiterate	
<i>Specific health-related status</i>	Living with disability    Pregnant women    Chronic diseases    Other	
<i>Status</i>	Refugee    Internally displaced person    Host communities    Local communities	
<i>Volume of trader</i>		
<i>Type of goods or service offered</i>		
<i>Type of customers</i>	Wholesaler    Large retailer    Petty trader    Individual customer	
<i>How many crisis-affected people were impacted indirectly by the market support activities?</i>		
<i>Age</i>	Children (3-12)    Youth (12-25)    Adults (25-60)    Elderly (>60)    Mixed	

Code	Answer	Comments
<i>Gender</i>	Male Female Both	
<i>Specific health-related status</i>	Living with disability    Pregnant women    Chronic diseases    Other	
<i>Status</i>	Refugee    internally displaced person    Host communities    Local communities	
<i>Level of income</i>		
<i>Living distance to physical market place</i>	Less than a kilometre    Between 1 and 5 km    More than 5 km	
<i>Level of income</i>		
<b>Intervention codes</b>		
<i>What was the sector of the intervention?</i>	Intervention aiming at covering food security needs Intervention aiming at covering multiple needs including food security Intervention aiming at reducing copying mechanism	
<i>Who initiated the intervention?</i>	NGOs    UN agencies    Red Cross/ Red Crescent movement    private sector actors    government actors	
<i>What was the intervention duration?</i>	Less than 12 months    More than 12 months	
<i>What activities were implemented?</i>	Support to market chain actors across market system(s) Support to market services and infrastructure	
<i>To whom was the market support provided?</i>	Importer    wholesalers    large retailers    petty traders Financial service providers    transporters    storage place owner    other	
<i>What type of support was provided?</i>	CTP support    In kind support    Services (transport, storage or else)    Skills development    Other	
<i>What was the goal of the activities?</i>	Restore business    Strengthen business    Develop business    Combination	
<i>Describe the activities</i>		
<b>Outcome codes</b>		
<i>Which food security outcomes were targeted as regard to the crisis-affected population?</i>	Better diet diversity Increased food quality Appropriate food quantity Reduced number of negative copying mechanism related to food consumption (reduction of meal frequency, the quantity and quality of food consumed.) Better access markets (physical, social and financial) No food security outcomes Other outcomes	
<i>What outcome indicators were used?</i>	<i>And how were they measured?</i>	Household or individual dietary diversity score Food consumption score Self-assessed measure of food security Coping strategy index Proxy indicator Other
		Household survey Key informant interview Focus group discussion Desk review Other
<i>When were the outcomes measured?</i>	Pre-test: Post-test:	

Code		Answer	Comments
<i>Which outcomes were targeted as regard to the market support activities?</i>		Restore business Strengthen business Develop business Combination	
<i>What outcome indicators were used?</i>	<i>And how were they measured?</i>	Volume of trade Trader reported income Number and diversity of customers Number and diversity of suppliers	Market assessment & monitoring Key informant interview Focus group discussion Desk review Other
<i>When were the outcomes measured?</i>		Pre-test: Post-test:	
<b>Findings</b>			
<i>What findings do they report?</i>			
<i>Market support activity is effective to improve the food security situation of crisis-affected population</i>		Effect on diet diversity    Effect on food quality    Effect on food quantity    Effect on negative coping mechanism related to food consumption    Other	
<i>Market support activity had no impact on the food security situation of crisis-affected population</i>		Failure to have effect on diet diversity    Failure to have effect on food quality    Failure to have effect on food quantity    Failure to have effect on reduction of negative food related coping mechanism	
<i>Market support activity had a negative impact on the food security situation of crisis-affected population (describe)</i>			
<i>Market support activity had another impact on the humanitarian situation of the crisis-affected population (describe)</i>			
<i>Were the market support activities feasible?</i>		Yes ('but' if applicable)    No ('because') Lack of political acceptance    Donor reluctance    Non-functioning market    Non willingness from traders    Lack of market access	
<i>How have the market support activities been received?</i>		By trader: Positive    Negative    Mixed    No information By the affected population: Positive    Negative    Mixed    No information	
<b>Describe the new market situation</b>			
<i>Has the number of traders in the market been affected?</i>			
<i>Has the diversity of traders in the market been affected?</i>			
<i>Has the number of market services available been affected?</i>			
<i>Has the access to market place been affected?</i>			
<i>Has the trader/consumer interaction been affected?</i>			

Code	Answer	Comments
<b>Special interest</b>		
<i>Do market support activities affect market actors differently?</i>	Consider age, gender, socio-economic, urban, distance from market, etc.	
<i>Is the intervention aligned with national food security policy?</i>		
<i>Is there reference to trickle down/multiplier effects?</i>		
<i>Is there reference to other interventions replicating the approach?</i>		
<b>NOTE:</b>		
<b>RATIONALE:</b>		
<i>Describe the underlying case for why market support activities were needed?</i>		
<b>Theory of change</b>		
<i>Hand-written diagram</i>		

# 11.1. APPENDIX 4: MIXED METHODS CRITICAL APPRAISAL TOOL

(Langer, Stewart, and Winters, 2014)

Study type	Methodological appraisal criteria	Response						
		Yes	No	Comment / Confidence judgment				
<b>1. Qualitative</b> e.g. (A) Ethnography (B) Phenomenology (C) Narrative (D) Grounded theory (E) Case study	<b>I. RESEARCH IS DEFENSIBLE IN DESIGN</b> (providing a research strategy that addresses the question)  <u>Appraisal indicators:</u> ✓ <i>Is the research design clearly specified and appropriate for aims and objectives of the research?</i>  Consider whether							
	<i>i there is a discussion of the rationale for the study design</i>							
	<i>ii the research question is clear, and suited to qualitative inquiry</i>							
	<i>iii there are convincing arguments for different features of the study design</i>							
	<i>iv limitations of the research design and implications for the research evidence are discussed</i>							
	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:25%;"><b>Defensible</b></td> <td style="width:25%;"><b>Arguable</b></td> <td style="width:25%;"><b>Critical</b></td> <td style="width:25%;"><b>Not defensible</b></td> </tr> </table>	<b>Defensible</b>	<b>Arguable</b>	<b>Critical</b>	<b>Not defensible</b>	Worth to continue:		
	<b>Defensible</b>	<b>Arguable</b>	<b>Critical</b>	<b>Not defensible</b>				
	<b>II. RESEARCH FEATURES AN APPROPRIATE SAMPLE</b> (following an adequate strategy for selection of participants)  <u>Appraisal indicators:</u> Consider whether							
	<i>i there is a description of study location and how/why it was chosen</i>							
	<i>ii the researcher has explained how the participants were selected</i>							
	<i>iii the selected participants were appropriate to collect rich and relevant data</i>							
	<i>iv reasons are given why potential participants chose not take part in study</i>							
	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:25%;"><b>Appropriate sample</b></td> <td style="width:25%;"><b>Functional sample</b></td> <td style="width:25%;"><b>Critical sample</b></td> <td style="width:25%;"><b>Flawed sample</b></td> </tr> </table>	<b>Appropriate sample</b>	<b>Functional sample</b>	<b>Critical sample</b>	<b>Flawed sample</b>	Worth to continue:		
	<b>Appropriate sample</b>	<b>Functional sample</b>	<b>Critical sample</b>	<b>Flawed sample</b>				
	<b>III. RESEARCH IS RIGOROUS IN CONDUCT</b> (providing a systematic and transparent account of the research process)  <u>Appraisal indicators:</u> Consider whether							
	<i>i researchers provide a clear account/description of the process by which data was collected (e.g. for interview method, is there an indication of how interviews were conducted?/procedures for collection or recording of data?)</i>							
	<i>ii researchers demonstrate that data collection targeted depth, detail and richness of information (e.g. interview/observation schedule)</i>							
	<i>iii there is evidence of how descriptive analytical categories, classes, labels, etc. have been generated and used</i>							
	<i>iv presentation of data distinguishes clearly between the data, the analytical frame used, and the interpretation</i>							
	<i>v methods were modified during the study; and if so, has the researcher explained how and why?</i>							
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:25%;"><b>Rigorous conduct</b></td> <td style="width:25%;"><b>Considerate conduct</b></td> <td style="width:25%;"><b>Critical conduct</b></td> <td style="width:25%;"><b>Flawed conduct</b></td> </tr> </table>	<b>Rigorous conduct</b>	<b>Considerate conduct</b>	<b>Critical conduct</b>	<b>Flawed conduct</b>	Worth continuing:			
<b>Rigorous conduct</b>	<b>Considerate conduct</b>	<b>Critical conduct</b>	<b>Flawed conduct</b>					



Study type	Methodological appraisal criteria				Response		
					Yes	No	Comment / Confidence judgment
	<b>IV. RESEARCH FINDINGS ARE CREDIBLE IN CLAIM/BASED ON DATA</b> (providing well-founded and plausible arguments based on the evidence generated) <u>Appraisal indicators:</u> Consider whether						
	<i>i there is a clear description of the form of the original data</i>						
	<i>ii sufficient amount of data are presented to support interpretations and findings/conclusions</i>						
	<i>iii the researchers explain how the data presented were selected from the original sample to feed into the analysis process (i.e. commentary and cited data relate; there is an analytical context to cited data, not simply repeated description; is there an account of frequency of presented data?)</i>						
	<i>iv there is a clear and transparent link between data, interpretation, and findings/conclusion</i>						
	<i>v there is evidence (of attempts) to give attention to negative cases/outliers etc.</i>						
	<b>Credible claims</b>	<b>Arguable claims</b>	<b>Doubtful claims</b>	<b>Not credible</b>	<i>If findings not credible, can data still be used?</i>		
	<b>V. RESEARCH ATTENDS TO CONTEXTS</b> (describing the contexts and particulars of the study) <u>Appraisal indicators:</u> Consider whether						
	<i>i there is an adequate description of the contexts of data sources and how they are retained and portrayed?</i>						
	<i>ii participants' perspectives/observations are placed in personal contexts</i>						
	<i>iii appropriate consideration is given to how findings relate to the contexts (how findings are influenced by or influence the context)</i>						
	<i>iv the study makes any claims (implicit or explicit) that infer generalization (if yes, comment on appropriateness)</i>						
	<b>Context central</b>	<b>Context considered</b>	<b>Context mentioned</b>	<b>No context attention</b>			
	<b>VI. RESEARCH IS REFLEXIVE</b> (assessing what factors might have shaped the form and output of research) <u>Appraisal indicators:</u> Consider whether						
	<i>i appropriate consideration is given to how findings relate to researchers' influence/own role during analysis and selection of data for presentation</i>						
	<i>ii researchers have attempted to validate the credibility of findings (e.g. triangulation, respondent validation, more than one analyst)</i>						
	<i>iii researchers explain their reaction to critical events that occurred during the study</i>						
	<i>iv researchers discuss ideological perspectives/values/philosophies and their impact on the methodological or other substantive content of the research (implicit/explicit)</i>						
	<b>Reflection</b>	<b>Consideration</b>	<b>Acknowledgement</b>	<b>Unreflective research</b>	<i>NB: Can override previous exclusion!</i>		
<b>OVERALL DECISION – EXCLUDE / INCLUDE</b> (study generates new knowledge relevant to the review question and complies with minimum criteria to ensure reliability and empirical grounding of knowledge)							
Sources used in this section (in alphabetical order); Campbell et al (2003); CASP (2006); CRD (2009); Dixon-Woods et al (2004); Dixon-Woods et al (2006)cited in Gough 2012 ; Greenhalgh & Brown (2014); Harden et al (2004)cited in SCIE & Gough 2012; Harden et al (2009); Harden & Gough (2012); Mays & Pope (1995); Pluye et al (2011); Spencer et al 2006; Thomas et al (2003); SCIE (2010).							

Study type	Methodological appraisal criteria				Response		
					Yes	No	Comment / Confidence judgment
<p><b>2. Quantitative</b> (non-randomized; Randomized-Controlled)</p> <p>Common non-random design include:</p> <p>(A) Non-randomized CT</p> <p>(B) Cohort studies</p> <p>(C) Case-control</p> <p>(D) Cross-sectional analytical studies</p> <p>Most common ways of controlling for bias due to baseline confounding:</p> <ul style="list-style-type: none"> <li>• Matching attempts to emulate randomization</li> <li>• Propensity score matching and methods</li> <li>• Stratification where sub-groups have been compared</li> <li>• Regression analysis where covariates are adjusted for</li> </ul> <p>Randomized designs: Randomized control trial (RCT)</p>	<p><b>I. Selection bias:</b> (Are participants recruited in a way that minimizes selection bias?)</p> <p><u>Appraisal indicators:</u> Consider whether</p>						
	i there is a clear description of how and why sample was chosen						
	ii there is adequate sample size to allow for representative and/or statistically significant conclusions						
	iii participants recruited in the control group were sampled from the same population as that of the treatment						
	iv group allocation process attempted to control for potential risk of bias						
	<b>Low risk of bias</b>	<b>Risk of bias</b>	<b>High risk of bias</b>	<b>Critical risk of bias</b>	Worth continuing:		
	<p><b>II. Bias due to baseline confounding:</b> (Is confounding potentially controllable in the context of this study?)</p> <p><u>Appraisal indicators:</u> Consider whether</p>						
	i the treatment and control group are comparable at baseline						
	ii matching was applied, and in case, featured sufficient criteria						
	iii the authors conducted an appropriate analysis that controlled for all potential critical confounding domains						
	iv the authors avoided to adjust for post-intervention variables						
	<b>Low risk of bias</b>	<b>Risk of bias</b>	<b>High risk of bias</b>	<b>Critical risk of bias</b>	Worth to continue:		
	<p><b>IF RANDOMIZED CONTROL TRIAL, SKIP I + II AND START HERE</b></p> <p><b>Bias due to ineffective randomization:</b> (Is allocation of treatment status truly random?)</p> <p><u>Appraisal indicators:</u> Consider whether</p>						
	i there is a clear description of the randomization process						
ii the unit of randomization and number of participants is clearly stated (pay special attention to treatment and control locations/ balance )							
iii eligibility criteria for study entry are specified							
iv characteristics of baseline and endline sample are provided <sup>1</sup>						Preferable condition, see 1	
<b>Low risk of bias</b>	<b>Risk of bias</b>	<b>High risk of bias</b>	<b>Critical risk of bias</b>	If critical risk of bias, treat as non-random study			

Study type	Methodological appraisal criteria				Response		
					Yes	No	Comment / Confidence judgment
	<b>III. Bias due to departures from intended interventions</b> (Was the intervention implemented as laid out in the study protocol?) <u>Appraisal indicators:</u> Consider whether						
	<i>i the critical co-interventions were balanced across intervention groups</i>						
	<i>ii treatment switches were low enough to not threaten the validity of the estimated effect of intervention</i>						
	<i>iii implementation failure was minor and unlikely to threaten the validity of the outcome estimate</i>						
	<i>iv it is possible that intervention was taken by the controls (contamination and possible crossing-over)*</i>						<i>*whilst challenging in terms of estimating impact, spill-overs might be an important finding in itself (e.g. teachers read to pupils/village/family members)</i>
	<i>v it is possible that knowledge of the intervention group affects how the two study groups are treated in course of follow-up by investigators?*</i>						<i>**consider only in extreme cases in which preferential treatment is clearly evident; blinding in general not expected in social interventions</i>
	<b>Low risk of bias</b>	<b>Risk of bias</b>	<b>High risk of bias</b>	<b>Critical risk of bias</b>	Worth to continue:		
	<b>IV. Bias due to missing data (attrition)</b> (Are the intervention groups free of critical differences in participants with missing data?) <u>Appraisal indicators:</u> Consider whether						
	<i>i outcome data are reasonably complete (80% or above)</i>						
	<i>ii If 'no', are missing data reported?</i>						
	<i>iii If missing data: are proportion of participants and reasons for missing data similar across groups?</i>						
	<i>iv If missing data: Were appropriate statistical methods used to account for missing data? (e.g. sensitivity analysis)</i>						
	<i>v If not possible to control for missing data, are outcomes with missing data excluded from analysis?</i>						
	<b>Low risk of bias</b>	<b>Risk of bias</b>	<b>High risk of bias</b>	<b>Critical risk of bias</b>	Worth continuing:		
	<b>V. Outcome reporting bias</b> (Are measurements appropriate, e.g. clear origin, or validity known?) <u>Appraisal indicators:</u> Consider whether						
	<i>i there was an adequate period for follow up***</i>						<i>***in many social science interventions, follow-up is not required to coincide with the start of the treatment; further, longer period of follow up are often required to measure changes. In the context of education, the question of retention – in particular when dealing with short intervention periods (&lt; 1 month) is of major interest.</i>
	<i>ii the outcome measure was clearly defined and objective</i>						
	<i>iii outcomes were assessed using standardized instruments and indicators</i>						
	<i>iv outcome measurements reflect what the experiment set out to measure</i>						
	<i>v the methods of outcome assessment were comparable across experiential groups</i>						
	<b>Low risk of bias</b>	<b>Risk of bias</b>	<b>High risk of bias</b>	<b>Critical risk of bias</b>	Worth continuing:		

Study type	Methodological appraisal criteria				Response		
					Yes	No	Comment / Confidence judgment
	<b>VII. Bias in selection of results reported</b> (Are the reported outcomes consistent with the proposed outcomes at the protocol stage?)						
	<u>Appraisal indicators:</u> Consider whether						
	<i>i it is unlikely that the reported effect estimate is available primarily because it was a notable finding among numerous exploratory analyses</i>						
	<i>ii it is unlikely that the reported effect estimate is prone to selective reporting from among multiple outcome measurements within the outcome domain</i>						
	<i>iii it is unlikely that the reported effect estimate is prone to selective reporting from among multiple analyses of the outcome measurements</i>						
	<i>iv the analysis includes an intention to treat analysis? (If so, was this appropriate and were appropriate methods used to account for missing data?)****</i>						****usually in clinical RCTs, rare in social science: only rate if conducted
	<b>Low risk of bias</b>	<b>Risk of bias</b>	<b>High risk of bias</b>	<b>Critical risk of bias</b>			
<b>OVERALL RISK OF BIAS:</b>							
Sources used in this section (in weighted order): Cochrane (2014); Stewart et al (2014); Stewart et al (2012); Higgins et al (2011); Greenhalgh & Brown (2014); Pluye et al (2011); Gough et al (2007)							

Study type	Methodological appraisal criteria	Response		
		Yes	No	Comment / Confidence judgment
<p><b>3. Mixed methods<sup>2</sup></b></p> <p><b>Sequential explanatory design</b></p> <p>The quantitative component is followed by the qualitative. The purpose is to explain quantitative results using qualitative findings. E.g. the quantitative results guide the selection of qualitative data sources and data collection, and the qualitative findings contribute to the interpretation of quantitative results.</p> <p><b>Sequential exploratory design</b></p> <p>The qualitative component is followed by the quantitative. The purpose is to explore, develop and test an instrument (or taxonomy), or a conceptual framework (or theoretical model). E.g. the qualitative findings inform the quantitative data collection, and the quantitative results allow a generalization of the qualitative findings.</p> <p><b>Triangulation designs</b></p> <p>The qualitative and quantitative components are concomitant. The purpose is to examine the same phenomenon by interpreting qualitative and quantitative results (bringing data analysis together at the interpretation stage), or by integrating qualitative and quantitative datasets (e.g. data on same cases), or by transforming data (e.g. quantization of qualitative data).</p> <p><b>Embedded/convergent design</b></p> <p>The qualitative and quantitative components are concomitant. The purpose is to support a qualitative study with a quantitative sub-study (measures), or to better understand a specific issue of a quantitative study using a qualitative sub-study, e.g. the efficacy or the implementation of an intervention based on the views of participants.</p>	<p><b>I RESEARCH INTEGRATION/SYNTHESIS OF METHODS</b> (assessing the value-added of the mixed-methods approach)</p> <p>Applied mixed-methods design:</p> <ul style="list-style-type: none"> <li>Sequential explanatory design</li> <li>Sequential explorative design</li> <li>Triangulation design</li> <li>Embedded design</li> </ul> <p><u>Appraisal indicators:</u></p> <p>Consider whether</p>			
	<p>i the rationale for integrating qualitative and quantitative methods to answer the research question is explained</p> <p>[DEFENSIBLE]</p>			
	<p>ii the mixed-methods research design is relevant to address the qualitative and quantitative research questions, or the qualitative and quantitative aspects of the mixed methods research question</p> <p>[DEFENSIBLE]</p>			
	<p>iii there is evidence that data gathered by both research methods was brought together to inform new findings to answer the mixed-methods research question (e.g. form a complete picture, synthesize findings, configuration)</p> <p>[CREDIBLE]</p>			
	<p>iv the approach to data integration is transparent and rigorous in considering all findings from both the qualitative and quantitative module (danger of cherry-picking)</p> <p>[RIGOROUS]</p>			
	<p>v appropriate consideration is given to the limitations associated with this integration, e.g. the divergence of qualitative and quantitative data (or results)?</p> <p>[REFLEXIVE]</p>			
<p>For mixed methods research studies, each component undergoes its individual critical appraisal first. Since qualitative studies are either included or excluded, no combined risk of bias assessment is facilitated, and the assigned risk of bias from the quantitative component similarly holds for the mixed methods research.</p> <p>The above appraisal indicators only refer to the applied mixed methods design. If this design is not found to comply with each of the four mixed methods appraisal criteria below, then the quantitative/qualitative components will individually be included in the review:</p>				
<p><b>Mixed methods critical appraisal:</b></p> <p>Research is defensible in design</p> <p>Research is rigorous in conduct</p> <p>Research is credible in claim</p> <p>Research is reflective</p>	<p><b>Qualitative critical appraisal:</b></p> <p>Include / Exclude</p>	<p><b>Quantitative critical appraisal:</b></p> <p>Low risk of bias</p> <p>Risk of bias</p> <p>High risk of bias</p> <p>Critical risk of bias</p>		
<p><b>Combined appraisal:</b></p> <p>Include / Exclude mixed methods findings judged with _____ risk of bias</p>				
<p>Section based on Pluye et al. (2011). Further sources consulted (in alphabetical order): Creswell &amp; Clark (2007); Crow (2013); Long (2005); O’Cathain et al. (2008); O’Cathain (2010); Pluye &amp; Hong (2014); Sirriyeh et al. (2011).</p>				

<sup>1</sup> Two theoretical exceptions to this rule apply:

- i An RCT with appropriate randomization procedure can be included without showing baseline data, as both experimental groups can be assumed to be equal at baseline by design.
- ii A sophisticated quasi-experimental design such as propensity score matching or regression discontinuity design in theory could make the same claim to not require baseline data.

In both cases, the advice of an evaluation specialist will be sought as the researcher does not have the capacity to make an informed judgment in such specialist cases.

<sup>2</sup> The mixed methods critical appraisal is facilitated for studies applying an explicit mixed methods approach. The component is applied in addition to criteria for the qualitative component (1 to 6), and appropriate criteria for the quantitative component (1 to 6).



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## OXFAM

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