



Natural Disasters: What is the Role for Social Safety Nets?

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The views expressed are solely those of the study team and do not reflect the views of the sponsoring organization.

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Abstract

This paper makes the case for why safety nets are an important tool for managing the risk of natural hazards. The use of safety nets is advocated both *ex ante*, to prevent and mitigate the impact of natural disaster and *ex post*, to cope with the impacts of natural shocks. Firstly, the paper explores the implications of contextual factors to be taken into account in the design of an effective safety net system to respond to the needs generated by natural disasters. Learning from the responses to a number of recent natural disasters, a typology of the different types of natural hazards which require different approaches to reduce their risk is introduced. Secondly, the paper considers some “guidelines” for improving the design and implementation of safety nets either to prevent and/or to recover from natural disasters. Finally, some conclusions and recommendations for more effective safety net and suggestions for addressing key issues are outlined.

JEL Classification: Q54 - Climate; Natural Disasters; Global Warming; H53 - Government Expenditures and Welfare Programs; I38 - Government Policy; Provision and Effects of Welfare Programs.

Keywords: natural disasters, early warning systems, disasters risk management, social risk management, transfers, social protection, social assistance, safety nets, targeting, poverty, Africa, Latin America, South Asia, Bangladesh, Ethiopia, Pakistan, Indonesia, Niger

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Acronyms

APL	Adaptable Program Loan
DAC	Donor Assistance Committee
DPPA	Disaster Prevention and Preparedness Agency
DRM	Disaster risk management
EDI	Ethiopia Drought Index
ENA	Emergency needs assessment
EWS	Early warning system
FSCB	Food Security Coordination Bureau
GAM	Free Aceh Movement
GFDRR	Global Facility for Disaster Risk and Recovery
GIS	Geographic Information Systems
GR	Gratuitous Relief
IDP	Internally displaced person
IRC	International Rescue Committee
LSCG	Livelihoods Support Cash Grant
MASAF	Malawi Social Action Fund
MDG	Millennium Development Goal
MEGS	Maharashtra Employment Guarantee Scheme
NFRA	National Food Reserve Agency
ODA	Official development assistance
PSNP	Productive Safety Net Program
RNA	Rapid needs assessment
SRM	Social risk management
SSN	Social safety net
SSN	Social safety net
UNOCHA	United Nations Office for the Coordination of Humanitarian Affairs
VAM	Vulnerability analysis and mapping
VGf	Vulnerable Group Feeding
WFP	World Food Program

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Summary

This paper aims to achieve several different objectives, each of which is addressed through a number of standalone chapters. As a whole, the purpose of this paper is to make the case for why safety nets are an important tool for managing the risk of natural hazards. We advocate the use of safety nets, both *ex ante*, to prevent and mitigate the impact of a disaster and *ex post*, to cope with the impacts of natural shocks. The paper also considers how to improve the design and implementation of safety nets for natural hazards. Learning from the responses to a number of recent natural disasters, we firstly distinguish the different types of natural hazards, which require different approaches to reduce their risk. We then consider some of the key issues to take into account in the design of *ex ante* safety nets. Thirdly through the use of several case studies, we argue that the contextual situation needs to be better incorporated into safety net design. Finally we outline some of the design choices for a safety net.

The multitude of people affected by dramatic natural shocks is evidence of our inadequacy at dealing with such events and signals that we must find new ways to decrease the scale of these disasters. Empirically, poor areas are more prone to natural disasters than wealthy areas (this does not mean they are more prone to natural hazards) meaning similar shocks in France and Peru can have vastly different impacts. Hence there is a link between disaster risk and poverty, one that can lead the poor to become trapped in a cycle of poverty and exposure to natural shocks.

Given this assertion that similar shocks can affect people differently, the premise is that a major hazard may not lead to disaster, if a community or vulnerable groups are well-prepared. The risk of a disaster is therefore defined by both the probability of the hazard *and* the vulnerability of the household and community. As vulnerability is the endogenous factor, by implication, it must be controlled in order to reduce a community or nation's risk of natural disaster. Therefore we can look to the typical mechanisms to reducing vulnerability – social protection and social risk management. This is a suitable lens through which to approach disasters because it focuses on how society manages risk at a community and household level. This contrasts with disaster risk management, which puts the disaster itself at the center of its management strategy.

Safety nets are not a panacea for disaster prevention and management. Not only must they work in conjunction with other program and policies to be effective, but they are not equally suited to all types of natural hazards. A typology of disasters and disaster risk can help determine if they are appropriate. Accurate classification is difficult due to poor information and monitoring systems and changing socio-economic and climatic conditions, so that the frequency of events cannot be estimated with certainty. This typology confirms that high income countries are not prone to high risk and relatively more frequent 'hydrometeorological' hazards such as droughts and rainfall-related floods, so supporting the thesis that with the appropriate management, these types of hazards are controllable events and could be prevented with the support of *ex ante* safety nets. This approach to disasters sees natural hazards as inherent to poverty and therefore must be integrated into the development and poverty reduction process. For medium and low-frequency, high impact 'geophysical' events (for example the 2004 Tsunami, or Pakistan's earthquake in 2005), *ex ante* safety nets will be less applicable although safety nets could still help mitigate the impacts of the shocks, *ex post*. Disaster Risk Management (DRM) has been the traditional approach to disasters. DRM focuses on mitigating impacts by strengthening infrastructure, which is more suited to guard against these high impact infrequent disasters. Safety nets and social protection can therefore be useful against covariate shocks and, increasingly over time, as a tool to protect households from idiosyncratic shocks.

Until now, social protection responses to natural disaster have been *ad hoc*. The approach of this paper is to integrate natural hazards into the development process, not see such shocks as exogenous to it. Bangladesh and Ethiopia have begun to use this approach and are here as case studies to help the

design of future ex ante safety nets. Bangladesh's flood and cyclone response is pre-planned and shows how the policy and economic structure are an important part of managing risk – and are integral to laying the groundwork for a good safety net. Ethiopia's Productive Safety Net Program illustrates the importance of scalable safety nets which are in place to protect the poorest on a regular basis but can be scaled up, when and where shocks occur.

Assessing the context for establishing a safety net is paramount and the case studies reveal that in the past this is all too frequently overlooked nor fully understood. Seven key areas are identified including the type of natural hazard; demographics; geographic and demographic spread of event; political, economic and social conditions; infrastructure and management capacity; resource availability, policy and international context; and effective EWS to grant data availability. The case studies provided examples of how understanding the context positively and negatively affected different areas of safety net design and how the design may have been adapted if they had been fully considered.

This lays the groundwork for designing safety nets. Aspects of safety net design are discussed from institutional management, targeting, selecting an appropriate safety net and setting the quantity and frequency of payment, all aspects of delivery from timeliness, security and coordination, funding and donors. What emerged is that safety nets cannot conform to a blueprint, but must be molded to the local context – from the national down to community level. Yet the community is paramount in all aspects of the safety net from design to implementation, monitoring and evaluation, including catering to the needs of specific vulnerable groups – particularly in a post-shock context; and political buy-in is essential to the process, so that safety nets are embedded in the policy framework to ensure their sustainability and enable a smooth transition from pre- to post- shock, or relief to recovery and rehabilitation.

There are still many areas that require research and are improperly understood. More resources need to be channeled into monitoring, evaluation and data collection about the impacts of different safety nets. More safety net 'champions' need to be identified and lessons learned from success stories. And there needs to be a better understanding of the role that both the informal and private sectors can play in providing and complementing safety nets.

But what primarily emerges from the case studies is that safety nets for disaster prevention or impact mitigation are only possible with political will. Governments respond reactively, to media attention on crisis situations but the focus needs to shift to publicize situations where disasters have been avoided. Donors and implementing governments both need to become more accountable to program recipients as well as held to account by the tax-paying public and the media. With such commitment, it could be possible to mitigate the unacceptable impacts of many natural disasters.

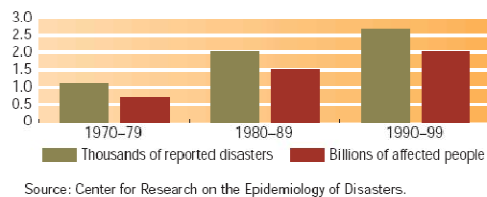
1 Introduction

The frequency of dramatic natural shocks around the world is a reminder that governments and the international community need to do more to prevent and mitigate the human misery and economic costs that result from such calamities. Relief may come increasingly rapidly in best case situations but what is achieved in the rehabilitation and recovery phase is typically inadequate.

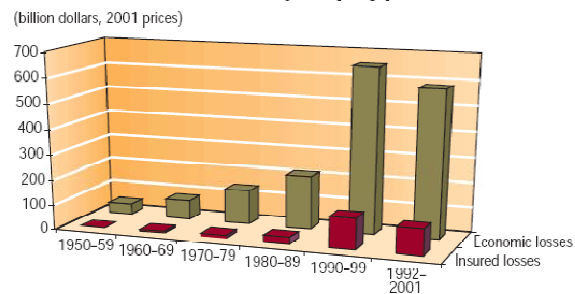
The human ‘cost’ in terms of deaths, injuries, slights to health and loss of human capital are now widely recognized and natural hazards are cited as one of the key reasons for failing to meet the Millennium Development Goals³. The number of people affected by large natural shocks has been rising with three times more people affected by disasters in the 1990s compared with the 1970s and a fivefold increase in terms of economic losses (Figure 1).⁴ In South Asia alone, between 1990 and 2007, 682 natural disasters occurred causing the death of an estimated 400,000 people, and affecting many more (Heltberg, 2007). Poor households are the most exposed to negative shocks. There is empirical evidence that the poor are less able to respond to crisis than the non-poor (Vakis et al. 2004). While the most evident impacts are in lost assets, the impacts can permeate further, into social structure and psychological well-being (Benson and Clay, 2004).

Figure 1. Number of reported disasters and people affected over the past 30 years and economic losses from 1950-50 until 1992-2001.

Over the past 30 years, both the number of reported disasters and the number of people affected have more than doubled.



Economic losses from great natural disasters are increasing, but insured losses are barely keeping pace.



Source: IMF (2003).

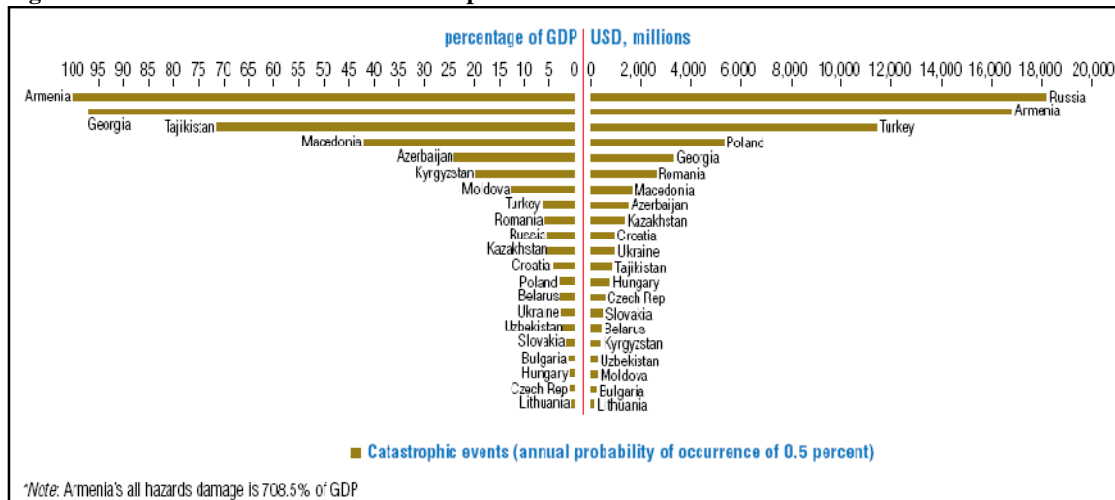
Disasters can also have severe short term impacts upon public finances: loss of revenue, rise in expenditure, and indirectly through publicly owned utilities, with longer term consequences for

³ Atkinson, R. ed. (2007) *Humanitarian Exchange* 38 (6), 1-2. See also DFID, 2004.

⁴ Red Cross (2002) *World Disasters Report*

economic growth, development and poverty reduction (Benson and Clay, 2004). A World Bank report estimated that over 1990 - 2000, the economic loss caused by natural disasters represented 2 to 15 percent the GDP of an exposed country (IEG 2007). Figure 2 provides estimates of the potential impact that natural disasters can have on the economic performance of several countries in Europe and Central Asia. Even if the national economy recovers relatively quickly, national level indicators can be misleading, failing to reflect what may be a more disturbing reality for the local economy and thereby hiding the need for and/or the effectiveness of an ongoing response in the affected area, rendering exposed groups even more vulnerable (DFID, 2004). For example, the 2004 tsunami reduced Indonesia's GDP growth by 0.6 per cent, but caused about 30 per cent fall in the regional product of the most heavily hit province of Aceh.⁵ Indeed it is localized hazards that account for "the greatest share in the absolute increase in economic losses".⁶ The size of an economy is also a key factor in determining the magnitude of the economic losses. Four years after hurricane Mitch hit Honduras, the GDP was 6% lower than the projections done before the disaster (Vakis, 2006).

Figure 2. Economic Loss Potential in Europe and Central Asia



Source: Pusch, Christoph (2004)

The financial costs of natural disasters in terms of relief and recovery assistance are also escalating. Humanitarian spending by the DAC rose from \$2.3 billion in 1990 to \$8.2 billion in 2005. And these

⁵ Armas, Enrique Blanco, Wolfgang Fengler and Ahyah Ihsan. 2008. 'The impact of the tsunami and the reconstruction effort on Aceh's economy.' Jakarta, World Bank, draft.

⁶ Maxwell D, Webb P, Coates J, Wirth J. (2008) *Rethinking Food Security in Humanitarian response*. Paper presented to the Food Security Forum, Rome, April 16-18, 2008.

figures seem to be the norm: spending in 2003 was \$7.7 billion and over \$7.5 billion in 2006 and 2007.⁷

The link between high exposure to disaster risk and poverty is now widely accepted. Environmental degradation, migration, lack of land rights, and lack of access to basic services are just some of the factors which have a direct adverse effect on the poor and also exacerbate the risk of, or difficulty in recovering from natural hazards. 98% of those killed and affected by natural disaster are from developing countries, and it is estimated that by 2025, over half of all people living in developing countries will be highly vulnerable to floods and storms (Tearfund, 2005).

Measures to mitigate the risk of disaster can be effective: if a community struck by a major hazard is well-prepared, then it need not lead to disaster. Earthquakes of similar magnitude affect Japan and Peru, but in Japan the death toll averages 63 people each year, whereas in Peru, it is 2,900. Cuba, repeatedly hit by hurricanes has an excellent record of mitigating risks, just one of many examples being in 1998, when Hurricane Georges killed 589 in the Dominican Republic and Haiti but only 6 people in Cuba (Oxfam America, 2004). While the West invests large sums of money in risk prevention, very little official development assistance (ODA) is contributed to ensure poorer countries have the same defenses, even though prevention costs less than cure. The Government of Mozambique appealed to the international community for \$2.7 million to prepare for the floods forecast in 2000. Less than half of this was forthcoming, but the donor community was able to provide \$100 million once disaster had struck. In Bangladesh, preventive mechanisms to protect cattle from the floods, saved on the cost of recovery efforts by a factor of 17 (DFID, 2004). Typically, aid money has been used to ‘bandage the wounds, rather than prevent the injuries’ (Tearfund, 2005, 5) and shortsightedly, the crisis itself is seen as the starting point rather than in the broader context of a poverty and vulnerability (Maxwell et al, 2008).

Yet there is convincing evidence that investments in prevention reduce the severe costs of humanitarian and rehabilitation assistance. The Red Cross spent US\$1.1 million spent building 12,000 hectares creating a buffer of mangrove to protect Thai Binh province in Vietnam from typhoons. This has reduced annual costs of sea dyke maintenance by \$7.3 million each year, as well as stimulated fishing livelihoods and contributed to prosperity in the area to further help people the poor manage future shocks (IFRC, 2002).

⁷ Good Humanitarian Donorship Initiative (2007). Good Humanitarian Donorship and Disaster Risk Reduction: A Concept Paper. July 2007. Mimeo. In Maxwell et al, 2008.

This paper sets out a case firstly for taking a longer-term perspective in our response to these calamities. Secondly, it argues that these events should be seen not as isolated incidents but must be embedded within the broader issues of poverty and development in both their political and economic contexts. This perspective should shape the approach of vulnerable countries and the international community to natural hazards – as something that can and should be planned for - and consequently this will determine the types of interventions to undertake. This longer-term view shifts the focus beyond the immediate relief phase to helping vulnerable people and communities to withstand shocks and to rebuild livelihoods - hence the need for social protection. This paper advocates safety nets as one useful tool both to prevent and mitigate the effects of poverty generally and more specifically to address the impacts of natural disasters.

1.1 The objective of the paper and the target audience

On a day-to-day basis, most of the poor in developing countries deal with *idiosyncratic* shocks through informal arrangements but these systems are often inadequate, particularly when the community at large is affected, as is the case in the event of a severe natural shock. In the past, these *covariant* natural disaster shocks have been seen as uncontrollable and unexpected, to be dealt with *ex post* through emergency relief. Yet as elaborated below, repeated experience is showing that such relief response is inadequate. Instead, an approach incorporating short-to-long term mitigation and recovery is needed, one that can allow sound protection instruments to begin to play an expanded role as soon as a disaster occurs. Furthermore, a Social Risk Management (SRM) framework provides a process for planning the response strategy, which can draw upon existing implementation and monitoring systems.

There is no blueprint for implementing any specific type of safety net. One of the central themes of this paper is that each aspect of social protection must be dealt with in light of a thorough comprehension of the context, hence the identification in section three, of key contextual issues that must be understood prior to designing or implementing a safety net. However, some common issues arise during natural disasters and this paper examines the lessons that can be learned from recent experiences, for improving the effective use of safety nets in emergencies. It justifies the use of existing safety nets – either *ex ante*, in order to mitigate the impacts of a potential shock or to be scaled up once a disaster occurs, depending upon the situation. While this paper advocates *ex ante* safety nets, the reality is that they will continue to be designed more haphazardly in response to either slow or rapid-onset shocks. The paper is also a primer to guide the design and implementation of safety nets in such pressured situations.

The paper is aimed at a broad audience interested in the ‘why and how’ of using social safety nets to prevent, mitigate and cope with the impacts of natural hazards. Section 2 discusses the ‘why’, making the case for safety nets as a key tool in disaster risk management. Sections 4 and 5 go into the detail of how to organize and “operationalize” social safety nets in a disaster mitigation framework. It is therefore, directed more towards designers and implementers of safety nets.

1.2 Contribution to the literature

Thinking within a social risk management (SRM) framework, this paper sees a key role for social safety nets in the response to high-risk (frequent) natural shocks in two ways.

- (i) *A preventive approach*, which should be explicitly concerned with enhancing the structural capacity of the economy and society to withstand shocks. Safety nets for disasters should be designed *ex ante*, that is, well in advance of potential hazards. This implies manuals, time plans, assigning responsibilities to appropriate departments and ministries, ensuring sufficient capacity and human resources, preparations for an appeal, etc. so that they are ready to launch as soon as called upon. This social protection planning needs to be complemented by a range of regulatory measures such as land rights, labor standards, employment benefits, privatization reforms, trading and investment policies, construction codes for infrastructure commercial and domestic buildings and environmental policies, such as preventing and reversing land degradation. That is, the broader framework also necessary for poverty reduction is essential for effective disaster risk management. While these measures may affect the individual’s ability to cope with risk, they fall outside the domain of social protection and safety nets and so are only briefly discussed in section 5.
- (ii) *Implementation of safety nets (ex-post)* concerns the adjustments that need to be made with respect to deciding the type of safety net to administer and at what level, targeting procedures, an appeals process, a distribution mechanism and a monitoring and evaluation system. The simplest and easiest approach would be to scale up pre-existing safety nets. This reinforces why a general mechanism of social assistance through safety nets is ideal.

SRM is an analytical instrument and is the diagnostic framework used in this paper. Decisions will depend upon five contextual factors: (i) the type of disaster, (ii) the categories of affected people, distinguished by income group, livelihoods and capabilities; (iii) the social, political and economic situation of the affected area and country; (iv) the infrastructure and human capacity for coping with natural shocks; and lastly, (v) availability of resources and the international community. Three influences on resource availability to be explored are (a) commitment (b) flexibility to adapt financing

and programming; and (c) foresight and vision. The design of safety net arrangements should take these considerations into account, at least implicitly.

Most of the disasters and safety nets literature tends to focus on one or two particular mechanisms in order to respond to the impact of specific hazards. This paper seeks to set the discussion in the broader context of social risks. It considers the different characteristics of various recent disasters and then attempts to determine guidelines, or a checklist, of what decisions to take, when and how. As the discussion becomes detailed and technical, the exercise of designing a safety net for high impact natural disasters is intended to remain consistent with the objective of SRM. Specifically, the paper aims to answer the following questions:

- What adaptations to usual safety net targeting and delivery mechanisms are needed?
- When conceptually and how in practice is the transition made from humanitarian assistance to disaster-related safety net assistance and then to a long run safety net program or policy?
- For how long should these programs be implemented?
- Who should be the primary targeted beneficiaries: those that have suffered larger losses (usually covered by the initial compensation packages) or those who have lost critical assets and income earning opportunities and may become critically poor?
- How can programs be scaled up and down rapidly and efficiently?
- Which programs work best in which circumstances and how should they be adapted to local circumstances?
- How to integrate donor responses with domestic responses.

This is a practical look at questions that need to be asked when coping with post-disaster situations. This combines with an essential diagnosis of the situation, which will be a prelude to any decisions about the characteristics of designing a safety net.

The paper draws on a set of desk-based case studies of recent disasters in low income countries: 'droughts' in Malawi in 2002-2003 and in Ethiopia in 2007-2008, the Asian Tsunami in December 2004, the earthquake in Pakistan in September 2005, the severe droughts in Niger associated to food crises in 1997-98 and 2005, and in Bangladesh the extreme river floods in 1998, 2004 and 2007 and the cyclone in November 2007. The case studies were partly derived from previous and ongoing research by the authors (e.g. Benson and Clay, 2004) and from an ongoing study by Aker and del Ninno (2008). There were two fresh investigations into the 2004 Tsunami in Indonesia and the

Pakistan earthquake, which involved construction of chronologies for the response to these disasters and a review of what information was actually available on impacts of the SSN response.

1.3 Structure of the paper

Chapter 2 provides a definition of natural disasters leading to a discussion of risk management and the role of social protection. Chapter 3 explores the implications of contextual factors to be taken into account in the design of a effective safety net systems to respond to the needs of natural disasters.

Chapter 4 makes the case for *ex ante* preparation of safety nets, comparing experiences from several countries such as Bangladesh and Ethiopia. Chapter 5 describes detailed implementation issues that are critical to the success of a safety net intervention. Finally Chapter 6 provides a summary of conclusions and offers suggestions for addressing the key issues. Checklists at the end of each chapter highlight critical questions that should be posed in the design of a safety net. These lists are intended as useful reminders and also to assist those reading at speed.

2 The role of social protection in responding to natural disasters

“Disasters do not just happen – to a large extent, they result from failures of development which increase vulnerability to hazard events.” (DFID, 2004,3).

Natural disasters typically affect the poorer parts of the world which are more vulnerable to the negative impacts of natural hazards. There is also growing concern that climate change has already, or will, increase the severity and frequency of some forms of natural hazard. At the same time there is a discernible trend in both policy discussion and in the research literature away from seeing natural catastrophic events as literally uncontrollable ‘disasters’ to recognizing them in part as a product of more complex socio-economic processes, including vulnerability and the collapse of livelihoods (DFID, 2004, Grosh *et al.* 2008; Maxwell 2008, Vakis, 2006; World Bank 2007).

Conventionally, disaster response has been largely the preserve of those professionals concerned with emergency, life saving assistance and disaster risk management (DRM). DRM focuses on reducing exposure to covariate risk to minimize loss of life and reduce the damage and economic losses from such events. Less attention is given to ‘indirect’ impacts on livelihoods and the developmental trajectory of potentially affected societies (Benson & Clay, 2004).

DRM takes the crisis as the starting point. It has led to emphasizing the need for ‘developmental relief’, for ‘post-disaster rehabilitation’ to ‘build back better’ and to ‘save lives and livelihoods’ (Maxwell *et al.* 2008). The shift of focus from management of disaster risks to social risks is a more contextualized approach and which also views prevention and mitigation in terms of enabling potentially affected people to cope with natural events. This more nuanced understanding has opened the door to the contribution of social risk management (SRM) and social protection and with it, a whole realm of other programs that can be useful in reducing the appalling impacts of some of these events.

This section begins by defining natural hazards and proposes that these events should be categorized in terms of risks. It then lays out the two approaches mentioned above and how they overlap in responding to the threat posed by natural hazards. Finally it considers social safety nets, a particular mechanism of social protection and the contribution that this can make to prevent and mitigate the impact of natural hazards.

2.1 Risk and natural events

There are two broad categories of natural ‘hazard’ that cause disasters: geophysical and hydro-meteorological events. Geophysical hazards include volcanic eruptions, earthquakes and resulting tsunamis. These ‘events’ are highly destructive outcomes of geophysical processes but are recognized as *infrequent* - commonly termed ‘low risk’ or low probability in the literature.⁸ Hazard risk should not be confused with disaster risk, which incorporates measures of vulnerability

Hydro-meteorological hazards are a more complex category. There are extreme and relatively rapid weather-related events such as tropical storms (hurricanes and cyclones) and related storm surges. Abnormal flooding is a broad category closely related to specifics of geo-hydrology. Disaster risk management has focused on one-time events leaving the drought and rainfall variability to be addressed as food security and water supply issues. There are also slower onset climatic events such as drought episodes that differ significantly from ‘normal’ conditions in terms of mean levels or distribution of rainfall. Such slow onset events may occur over months within a single annual cycle, or even extend over years. Conditions do not necessarily worsen steadily, but may progress erratically. Figure 3 shows that between 1996 and 2005 in Sub-Saharan Africa countries the most frequent natural disasters were droughts and floods, where droughts affected the highest number of people.

Thinking about this second group of events is divided as to whether these are always ‘natural’ hazards or sometimes man-made. The frequency of reported episodes such as food shortages in the Horn of Africa, or monsoon river flooding in Bangladesh, has led some such as De Waal and Devereux (De Waal, 1997 and Devereux, 2002) to identify a structural problem consisting of a complex set of interconnected dynamics at play, focusing on politics and interests, rather than on naturally occurring forces.

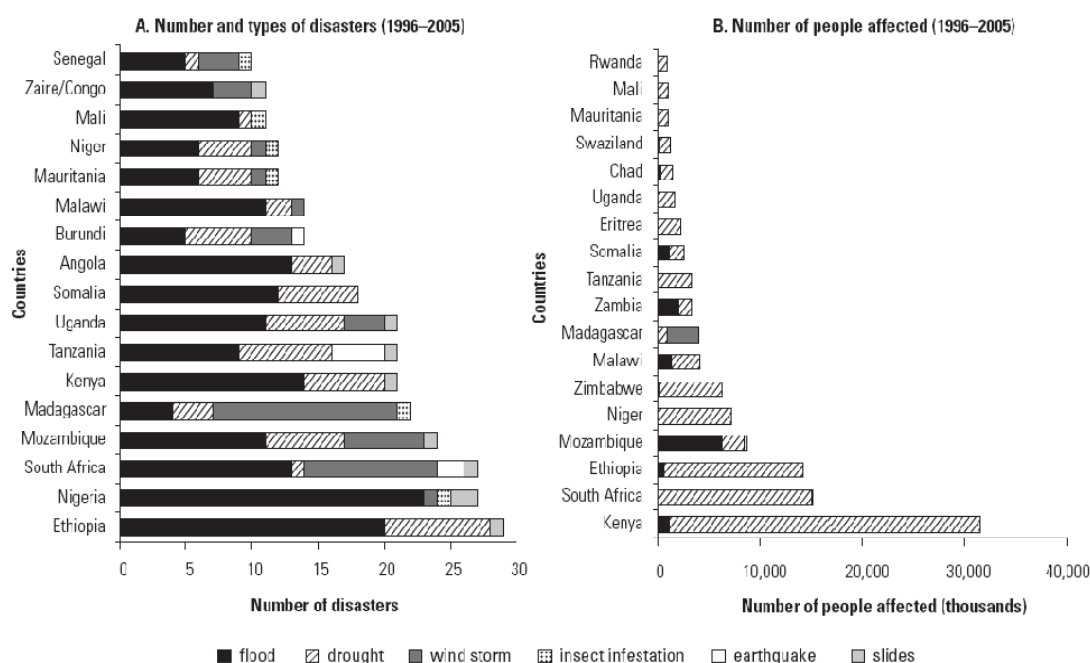
Projects tend to downplay these structural and political causes and instead accept the ‘natural’ role of these hazards⁹. Although the event may be ‘naturally’ occurring, its impact depends on several socio-economic and political conditions so that response can have very different consequences for those that are affected. Niger’s food crisis in 2005 is an example of how the occurrence of natural hazards

⁸ For example, earth tremors of low magnitude are widespread and often quite frequent of occurrence. Only events high on the Richter Scale and uncommon (e.g. probability of annual occurrence of 1 in 100 or less in a specific location) are likely to be dangerous or highly damaging. Only a few professional alarmists like Bill McGuire of UCL foresee an increase the frequency of geophysical hazards (McGuire et al, 2002).

⁹ See for example, the Project Appraisal Document for the World Bank Ethiopia Productive Safety Net Program (Washington, World Bank, 2004).

(drought and locust infestation) and economic shocks *on top* of conditions of chronic food insecurity can quickly lead to large-scale loss of human life (Aker and del Ninno 2008; Bailey 2008, Maxwell et al, 2008).

Figure 3. Types of disasters and number of people affected in the most exposed African countries, 1996-2005.



Source: IEG 2007.

These two approaches can be unified in the risk formula, $R=f(H,V)$, where the risk of disaster (R) is measured by the risk of hazard (H) and vulnerability (V). This acknowledges that a hazard can be an exogenous trigger for disaster, but vulnerability is an endogenous and therefore controllable factor of disaster. Instead, by differentiating events by frequency, as we have sought to do here, the risk of occurrence then becomes the basis for determining the need and type of response, which in this case, focuses on social protection.

Categorizing hazards in terms of risk is seemingly tautological.¹⁰ It is a difficult exercise but can be useful for deciding the appropriate response to invest in, to cope with a potential natural hazard. In

¹⁰ In 2004, UNDP developed a risk index, which was a measured risk in terms of mortality, as factors of hazard, vulnerability and population. But its purpose was largely to motivate global action and advocate the need for disaster risk policies – it was not attempting to analyze how particular programs could contribute to reducing disaster risk. See UNDP (2004) www.undp.org/bcpr.

reality, a country's financial capacity as well as political support will determine the options. Classifying the risk of the hazard will help evaluate the comparative economic value and political-economic viability of a proposed response, as well as determine the need for which type and duration of safety net.

This exercise is difficult because scientific understanding of the *likelihood* of particular hazards in different areas is still relatively inaccurate, especially when in areas of rapid environmental change. Similarly the *outcomes* of hazard events are often poorly characterized, due to insufficient monitoring, little recent experience, or rapidly changing socio-economic conditions. These two variables are captured in the Sterling Matrix, which categorizes what is known in terms of policy implications.

Table 1. Sterling matrix of knowledge and policy

		Knowledge about outcomes	
		Outcomes well characterized	Outcomes poorly characterized
Knowledge about likelihood	Firm basis for probabilities	Risk (e.g. Indian and Pacific Ocean Tsunami post 2004)	Ambiguity (e.g. Food Crises in Malawi: 2001-06)
	No firm basis for probabilities	Uncertainty (e.g. Tropical storms in era of climate change)	Ignorance (We don't know what we don't know?)

Note: Workshop Report on a workshop for the ESRC Science in Society Program, 11-12 March, 2004 at Minster Lovell Mill, Oxfordshire - Page 35 - Sterling's four cell Matrix: distinguishes situations of risk, ambiguity, uncertainty and ignorance.) www.sci-soc.net. The area in the middle of the table is the area of incertitude, where assertions by scientists, interests groups, and political actors take place.

The logic of this framework is to isolate the circumstances in which it is possible to ground the analysis in an assessment of risks. However, accurately gauging the probability of specific hazards is extremely difficult. It seems more useful to categorize natural disaster risks into three broader types of risk situations.

- *High risk*: vulnerability to events with an annual probability of one in ten or less ($P \geq 0.1$);
- *Medium risk*: vulnerability to events is in the range ($0.02 < P \leq 0.05$) annually;
- *Low risk*: vulnerability to events with a probability of less than 1 in fifty ($P < 0.02$) annually.

These broad bands of risk with an explicitly uncategorized 'gray area' between them (i.e. events with a probability of 0.1 to 0.05) are intended to reflect the difficulty of quantifying non-stationary risk and uncertainty – such as the influence of climate change and direct human impact on local environments which means that there is no firm basis for probabilities. The relationship between the level of economic development and vulnerability to different types of disaster is set out in Table 2, with the hypothesis that the probability of specific types of hazard results in a national or economy-wide disaster (IMF 2004 definition) differs for low, middle income and high-income countries. These different probabilities reflect the varying level of infrastructure and investments countries undertake

in disaster protection, such as disaster-proofing public infrastructure, regulations and access to public or private insurance mechanisms. High income, industrialized countries are more likely to have established complex systems of social protection and social welfare that quickly adapt to provide for disasters as a special case. Nevertheless it is worth noting that the need for the ex-post relief measures is still likely to arise.

Table 2. Disaster risk and development framework

Economic development	High risk $P \geq 0.1$	Medium risk $0.02 \leq P \leq 0.1$	Low risk $P < 0.02$
Status of country			
Low income/ affected by conflict	W_R and W_F ; Eg. Bangladesh: River Floods 1998,2000, 2004, 2007; Malawi: 'drought' 2002,2003, 2005	W_H , W_D W_T Eg. Bangladesh: Cyclone Sidr 2007	G_E G_{TS} G_V Eg. Aceh: Tsunami 2004; Pakistan: Earthquake 2005
Middle income		W_F , W_D W_H Eg. Hurricane Mitch, 1998	G_E , G_V , G_{TS} W_T Eg. Turkey Earthquakes; Montserrat 1995
High income		W_H Eg. Hurricane Katrina	G_E , G_V , G_{TS} ; W_F , W_D , W_T Eg. Kobe Earthquake Germany: Floods

Events: *Climatic (weather) events* – W_R - erratic rainfall; W_H – hurricane; W_D drought – extreme rainfall event; W_F – flood; W_T - extreme temperature; *Geophysical events*: G_E – earthquake, G_{TS} – tsunami, G_V – volcanic eruption;

High risk ($P \geq 0.1$) disaster events are effectively confined to in Low Income Countries and conflict-affected countries with a high level of poverty and vulnerability. These events require social safety nets and social protection organized on a continuing basis with a capacity to expand and contract. This is the situation in much of sub-Saharan Africa and a few other countries, especially those affected by conflict, e.g. Afghanistan, Haiti, Nepal. Other low-income countries often classified as high disaster risk including Bangladesh, Cambodia, Laos, Mongolia, North Korea and some provinces of Pakistan, India and Indonesia are not at risk of a national disaster to such high probability climatic variability. Some countries have made considerable progress in preventing such events becoming disasters e.g. Bangladesh, India and in Africa, Botswana and South Africa.

Very high levels of risk make financially viable insurance difficult, because the combination of some hedge in the premium against uncertainty and transaction costs makes risk transfer through market insurance instruments appear prohibitively expensive even to commercial organizations.¹¹ The poor who are extremely sensitive to climatic variability are vulnerable to such high risks for example,

¹¹ For example the recent high incidence of tropical storms was reported as resulting in premium quotations of more than 12% or more of the value insured of many offshore structures in the Gulf Oil industry in 2006 following Hurricane Katrina (Private communication, Jonathan Smythe).

much of the Ethiopian Highlands. Other poor people live in exposed locations where ex ante risk reduction is difficult or prohibitively expensive, such as the unprotected flood plains of the lower Shire valley in Malawi or on *chars* (unstable river islands) in the Brahmaputra in Bangladesh.

Low risk situations: we suggest less than an annual one in fifty year risk as a cut-off. In reality, precise estimates of probabilities are becoming difficult to establish with any confidence. A one in a hundred year flood is sometimes quoted with confidence as a low-risk event (e.g. Bangladesh in 1998). Extreme geophysical hazards, an earthquake, tsunami or volcanic eruption, are likely to have an even lower but uncertain probability. The combination of lack of awareness, unless there has been a recent event, and high rates of time preference in the poorest countries typically lead to low levels of ex ante disaster reduction measures.

The case studies selected for detailed consideration, Pakistan, Aceh, Malawi, Niger and Ethiopia include these extreme situations of both low and extremely high risk. Examples of problems and good practice are also drawn from the wider literature. Given the uncertainties about probabilities it seems accurate to define the current situation, to borrow from Sterling's Matrix, as an area of "uncertainty". This suggests that a 'precautionary principle' may be the most appropriate policy response rather than designing social protection strategies strictly on the basis of best available estimates of risks (EU, 2001).

2.2 SRM and social policy¹²

According to many accounts, Bangladesh, Indonesia and Pakistan have coped relatively well with recent disasters, and were able to avert severe famine, diseases or increase in mortality following the disaster. However, the massive death toll from the events themselves, the increase in poverty, and regressive impact on development begs the question: could more have been done? The social risk management (SRM) framework looks at how society manages risk, with the view that all people, households and communities are exposed to risk at various times from a variety of sources and aims to provide instruments to allow them to minimize the impact of exposure to risk and change their behavior in a way that helps them exit poverty and lower their vulnerability (Holzmann and Jorgensen 2000). SRM covers a range of mechanisms to prevent and mitigate risk (ex-ante strategy) or cope with its impacts after it has occurred (ex-post coping strategies), in a way which integrates risk as part of a response to vulnerability and poverty reduction overall. This expands the range of options for

¹² Vakis (2006) discusses the complementary role that Social Protection can play in the formation of an effective strategy for natural disasters management.

preventing and responding to risk, which focus more on restoring livelihoods, rebuilding assets and beyond the immediate relief phase to long term recovery. This contrasts with DRM, which puts the disaster itself at the center of its management strategy. The contribution of SRM is that it provides a more nuanced, holistic understanding and therefore can affect a more appropriate and better-targeted response to managing natural hazards.

Social protection which focuses on idiosyncratic shocks and social risk management responses to natural shocks have tended to be *ad hoc*. The role of safety nets in helping households to cope with and recover from covariate disaster has seldom been considered. “In general, disaster responses have tended toward the reactive and tactical rather than proactive and strategic. Countries affected by disaster as well as the donors that try to help them, including the [World] Bank, have generally treated disasters as interruptions to development rather than as a risk that is integral to development” (World Bank, 2005, ix). Social protection and livelihood support have already been an important part of Bank response to the reconstruction phases following disasters but its involvement has been slight in ex ante planning of disaster interventions, a toolkit of best practices for donors and governments, streamlining and accelerating the procurement process for delivering resources and technical assistance and embedding income support and safety nets within hazard management plans (Heltberg, 2007).

The types of mechanisms available may be public, which would include legislation on standards and codes, social transfers, public works programs, etc.; informal such as remittances and burial societies; or market-based instruments such as insurance and credit schemes. This paper concentrates only on a narrower range of public mechanisms, social safety nets. Social safety nets (social assistance programs) are one type of program within the broader range of social protection. They refer to non-contributory transfers (in cash or kind), targeted at the poor and vulnerable to catch those falling towards economic destitution, or at the permanently poor above a minimum income level. In this paper we consider almost exclusively, government-provided programs, although the design section can be relevant to implementers of non-national programs. We do not cover other instruments of social protection and social policy such as labor market policies or pension schemes.

Different types of social safety nets can have a **preventive and mitigating** (ex ante) role as well as a **coping** (ex post) function to help manage the impact of natural hazards. Ex ante mechanisms aim to reduce people’s vulnerability to a shock and increase their resilience.

To be effective, it is necessary that safety net and livelihood responses are **scalable**, that is they can expand and contract to deliver at scale when required. In order to be activated at short notice, safety nets would need to work through existing channels. An example of this is the risk financing mechanism under the Productive Safety Net Program (PSNP) in Ethiopia. Safety nets also typically have an established **monitoring and evaluation system**, which can track progress and so help be responsive to changes in need, as well as evaluate impact.

In conjunction with this, safety nets by definition have a **longer term vision** than relief programs, even if they are accessed only temporarily by participants. They therefore make the transition to the rehabilitation and recovery phases, whereas conventional response to natural disasters has traditionally concentrated primarily on relief and not on integrating into long term development.

Finally, safety nets do not stand alone but must be complemented by a broader system of preventive and coping strategies within the public, informal and market-based spheres. Safety nets often work in conjunction with **early warning systems**, which are critical to anticipating shocks and early intervention - an essential part of managing natural hazards. Also necessary are pre-planned hazard risk management programs that are immediately activated in the event of a shock warning, as with Bangladesh's Cyclone Preparedness Program.

3 The importance of understanding the pre-existing context: Lessons learned

This section uses the disaster and safety net case studies to demonstrate how their contexts significantly shaped their implementation and outcome. A more comprehensive chronology of the case studies is annexed.

Two stark observations became clear during this research. Firstly, that the underlying political, social and economic conditions determine the impact of natural disaster and therefore require thorough analysis in any decision-taking on the design and implementation of safety nets. Yet there is an absence of thorough understanding of the political, economic and social underpinnings, when designing a safety net. Frequently, safety nets are implemented as a crisis response, when time is acutely scarce. Consequently, highly pressured program designers and task team leaders give less attention to a detailed situation analysis and instead look for quick solutions. This inevitably means turning to the narrow set of examples from the current ‘trend’ of well-known safety nets, as well as creating rigid programs which are inflexible to changing conditions, or newly available information. Personal communication during this research revealed that task team leaders tend to ‘latch on’ to certain types of safety nets to deal with the food crises, without considering their full range of options. In reality there are multiple options in safety nets and designers should use them creatively to overcome hurdles in each individual case, rather than falling back on a few standard practices. Table 3 is to encourage safety net designers to work from the bottom up in planning safety nets to ensure that the unique context for each safety net is adequately incorporated. A similar table could be used as a monitoring tool: as the contextual issues in column one change, it indicates that modifications to the corresponding aspect of the safety net might be needed. But this is fluid, as indicated by the arrows which show that even as on ‘contextual issue’ triggers changes in the corresponding design feature, it may activate subsequent changes across other aspects of the safety net.

The second observation that this research drew attention to was the inadequacy of both analyses both prior to and after implementation for the questions we were trying to answer. The case studies were very unclear as to why particular decisions were taken: why were transfers set at a particular rate? How did program designers decide the length of time over which to provide transfers? The fact that safety net programs are frequently extended far beyond their initial period of activity, partly reflects this lack of thorough assessment of the depth of a problem (as well as the difficulty of securing resources for extended time periods). Post analysis is weak too, which among other things inhibits lesson-learning and gathering sound data on best practice in order to improve future performance.

Table 3. How context impacts safety net design

Contextual Issue	Safety net design feature	Examples
<ul style="list-style-type: none"> Type of natural event (slow/rapid onset) 	Duration of assistance	Short term safety nets for situations to help people get 'back on track' after a shock, e.g. the Pakistan earthquake; extended safety nets in situations with entrenched chronic poverty, e.g. Malawi and Niger in order to overcome the underlying vulnerability for people to be prone to even slight shocks.
<ul style="list-style-type: none"> Understanding the demographics 	Type of safety net	Labor-intensive public works for able-bodied unemployed; direct cash or kind transfers for disabled or labor poor, grants and loans for lost livelihoods .
<ul style="list-style-type: none"> Geographic & demographic spread of event 	Targeting	Universal coverage for widespread impacts; community targeting for more localized shocks or well-planned programs.
<ul style="list-style-type: none"> Socio/politico/economic circumstances 	Assistance, targeting, delivery	Avoiding use of the army in politically tense situations; paying attention to the social hierarchies if using community targeting.
<ul style="list-style-type: none"> Infrastructure & human capacity 	Implementation & Delivery	Delivering transfers through banking system with a relatively good infrastructure or where banking access can be expanded, e.g. Kenya's Hunger Safety Net.
<ul style="list-style-type: none"> Resource availability & international context 	Size, type & duration	A high level of international donor support will allow more scope in the design of the safety net; the impact of other international crises may impact on willingness of donors to invest in other safety nets).
<ul style="list-style-type: none"> Good data availability, effective EWS 	Monitoring & lesson-learning	In a general, the availability and accuracy of pre-existing data will affect all aspects of safety net design. Making better use of existing information can save resources and can help in establishing a baseline and designing an M& E system.

The purpose of this section is to encourage greater consideration of the specific context for which the safety net is being designed, firstly in order to escape resorting to 'blueprints'; and secondly to encourage designers to build flexibility into the safety net design so that the safety net can adapt to changing conditions. This is set out as a series of observations and lessons gathered from the case studies, which are used to illustrate the relevance of contextual issues to the design of the safety net

and how these issues have influenced both faults and successes of program implementation. A summary of the lessons learned from the analysis below are provided in the Annex. In section 5, lessons drawn from this analysis are translated into general operational guidelines for coping with a variety of natural events.

3.1 Defining the narrative

As the following examples demonstrate, **interpretation of the situation frames the policy response and defines the range of available options**. If the prevailing narrative is framed in terms of food availability for example, it overlooks the non-food related dynamics of a crisis and consequently possible advantages of non-food responses. Christopolos (2004) observed of the response to the Afghan famine in 2001-2 that the provision of seed distribution was “a misplaced narrative which saw livelihoods as dominated by subsistence agriculture”. Mis-diagnosis can have implications for the effectiveness of a program, and its impact on relieving vulnerability, as the examples in Malawi, Goma, Niger and Ethiopia illustrate. Further, in analyzing and designing solutions to an event, program designers must be careful not to crowd out other issues (such as conflict or the possibility of different environmental events in subsequent years) (Kennedy et al, 2007).

Traditional institutional setup means food is seen as the primary response Although in the last few years, cash transfers conditional or unconditional, are becoming *de rigueur* for safety nets in non-crisis times, the case studies show that emergency situations still tend to be framed in terms of resource mobilization, hence prompting a response in the specific resources required, rather than considering cash. Even recently, some WFP policy documents still dealt solely with food response to an emergency.¹³ While this may (or not) be necessary as a relief response, such an exclusive approach in practitioners’ documents makes it even harder to consider alternatives types of transfer during design.

- Malawi’s crisis was due in part, to dependence on maize in the diet, coupled with the rising consumer price of maize. Since the 1990s, government and donors have centered aid on providing maize, which is the predominant seed provided in a key safety net, the Starter Pack and Targeted Inputs Program. Rubey (2003), labels this the “maize trap” – policies which reinforce the importance of maize, even though in the current structure, it is no longer viable. “The implication is that the Malawi food crisis is a continuing, structural problem, not a transitory event caused by unusual weather or corrupt management of the national grain reserve. Thus, without efforts to

¹³ See WFP, 2006. This is a generic paper on targeting for emergencies, but it focuses on food as the only resource for transfers.

attack the structural causes of the decline in rural purchasing power, food crises will be a recurrent phenomenon in Malawi.”

- In Niger, although a variety of governmental and non-governmental institutions have been established to prepare for and respond to food crises in Niger since the 1970s, Niger’s strategic grain reserves were much lower in 2004-2005. Between 1992 and 2007, for example, the country reduced its strategic grain reserves, previously an important part of the country’s emergency response strategy. In 2004/2005, the government response to the food crisis, with support of non-governmental agencies and international organizations, consisted mainly of a range of emergency schemes which relied upon both imported and local food aid, with some local purchases occurring within Niger (Niamey and Maradi) and in northern Nigeria.
- In Goma, provision of food aid went against recipients’ preferences as well as market buoyancy. After the volcano in Goma, DRC in 2002, recipients stated a preference for cash and markets were active and well-supplied with food, but materials and food were provided instead. The food and in-kind kits given to families had the effect of depressing prices. The kits were soon being sold on the markets and became a parallel, debased currency, which also contributed to impoverishing those that previously had been trading and selling the same goods.
- After decades of food aid, donors and government have begun a structural shift in their management of recurrent drought and food insecurity – an acknowledgement at the policy level, that food insecurity is not necessarily characterized by unavailability of food. Following the 2003 drought in Ethiopia, Lautze (**Laitze et al. 2009**) argued that agencies’ response to disasters still had a food-first bias, because that was the historical norm. This drought led to establishing the PSNP with a cash-first principle. The current trend towards cash-first responses once again risks inattention to the reality of the situation as well as beneficiaries’ preferences – which strongly suggests that a cash-only response is not sufficient.
- The focus on the Tsunami distracted from sources of vulnerability connected with *other sources of risk*, such as conflict. It also imposed a restricted view of the other types of recovery that were required. For example, recovery focused on mitigating future Tsunami risks, rather than the risk of more likely seismic events.

Yet the focus should be an integrated response towards livelihood recovery and medium-long term support. Taking a longer term perspective and looking to recover livelihoods following severe natural shocks, will influence how needs are prioritized, the length of time it will take to rebuild assets and consequently, the choices made in designing a safety net. Yet these choices need not be absolute and the need for varying characteristics such as different types of transfer may change between the medium and longer term, as other programs come and go, or for example, as market accessibility

alters over time. The experiences below suggest that either a combination or a phasing-in of an alternate transfer may be optimal in some circumstances. Of course, preferences for these decisions must be balanced with the logistical capacity to implement such a program.

- In Aceh, the fishing industry was the most severely affected of all economic sectors after the Tsunami. Two thirds of boats were damaged, destroyed or lost and over a quarter of ports and landing sites could not be used¹⁴. Approximately 300,000 fishers lost their entire income source following the destruction of the boats¹⁵, a total loss to the sector of \$400 million.¹⁶ In order to restore the means of livelihoods as rapidly as possible, it was decided to replace the fishing boats and equipment *in kind*. In fact, this proved to be slow due to low availability of legal timber and often of inappropriate size/type, which emphasizes the necessity of looking pragmatically beyond the ideal solution to the logistical feasibility of the preferred choice.
- Contrastingly, in India, Oxfam effectively provided widows and female-headed households with *cash grants* to re-establish small businesses, plant vegetable gardens and purchase fishing nets.
- Pakistan mostly adopted a broadly comprehensive approach to livelihood recovery following the earthquake: Transfers were in-kind and agriculture-based: distributing seeds, tools, livestock and providing agricultural extension services. Non-agricultural programs particularly concentrated on skills training, such as sewing and some of these were directed at women and the livelihood approach supplemented other food, voucher and cash programs. Workfare activities utilized unskilled (rubble-clearing), to more skilled labor. This enabled people with a wide range of livelihoods to be assisted as well as provide opportunities to build their skills (training), improve their traditional practices (extension services), as well as to take advantage of the range of available skills of the affected population in the clearing-up process.

3.2 The political and institutional context

The strong impact that the political context can have on the effective implementation of safety nets often seems to be downplayed in project design, perhaps for diplomatic reasons. In Indonesia and Sri Lanka, deep political unrest complicated coordination, management and organization of activities. Projects do not just need to be protected from severe political struggles, but more mundanely, require

¹⁴ Badan Rehabilitasi dan Rekonstruksi (BRR) (2005) Aceh and Nias One year alter the Tsunami: The recovery effort and way forward, BBR, December 2005.

¹⁵ Brusset, E, Pramana, Dr W., Davies, A., Deshmukh, Y., Pedersen, S., Team C Voter, Davies, R. and Vaux, T. (2006) Evaluation of the Linkage of Relief, Rehabilitation and Development (LRRD) Regarding Interventions in Connection with the Tsunami Disaster in December 2004:

Indonesia Case Study, Tsunami Evaluation Coalition, 21st March 2006.

¹⁶ Consultative Group on Indonesia (2005) Indonesia: Preliminary damage and loss assessment, 19-20th January, 2005.

understanding political institutions and more everyday civil service relations. We draw on these two different types of political friction to emphasize the impact of political factors.

Political unrest can delay and even lead to termination of activities.

- In Pakistan, such instability led to a withdrawal of international staff during the rehabilitation phase in a situation where recovery was already delayed and slow. The second rehabilitation phase in 2007 was behind schedule: the LSCG had been extended for an additional six months, although almost one quarter of livelihood projects were still waiting to start. Housing construction was extremely overdue. However, by the summer of 2007, security had deteriorated so that international agencies withdrew all their expatriate staff from the earthquake-affected areas.

Understanding principals and agents relations within institutions. Day-to-day political relationships need to be well-understood, to avoid hindering program implementation. A realistic evaluation of the capacity of the implementing institutions is also essential.

- In Ethiopia's PSNP, there has been an ongoing struggle between the implementing department, the Food Security Coordination Bureau (under the Ministry of Agriculture) with the Ministry of Finance and the Disaster Prevention and Preparedness Agency (DPPA, recently re-named) who are heavily involved in distributing cash and food transfers respectively. The lack of solidarity, particularly in the initial phases permeated down to local level, delayed transfers and inhibited the responsiveness of the program. In crises times it required that the FSCB which currently holds entire responsibility for the program to relinquish resources to the DPPA, an undertaking that the FSCB has already shown an unwillingness to do. In 2008, the Government brought the FSCB and DPPA, under a single state minister. The hope is that this will help the coordination of the two departments.
- In India, the process of decentralization meant that the implementation responsibility for public works programs now rests with the locally elected bodies known as Panchayat Raj institutions (PRIs). Unfortunately most PRIs lacked the capacity to implement programs. As a result line department officials continue to have a strong influence in program implementation, which often generate opportunities for leakages. Political influence as well as bureaucratic meddling often led to selection of projects which have no benefit to the local community (del Ninno, Subbarao and Milazzo 2009).
- This type of log-jam can occur particularly in decentralized settings, between the federal and sub-national levels. In Ethiopia, while the federal level acts as overall coordinator, the regions are the agents, or implementers of the program. Yet, the federal government has very little administrative authority over the largely autonomous regions, which makes it hard to enforce even basic

directives such as reporting standards. However, in Indonesia, working with a decentralized safety net structure, gave control over to local authorities and allowed the distribution and implementation to be adapted to the local situation. The principal-agent problem may be universal for safety nets in any decentralized context, but it is even more acute in emergency and disaster situations, where the humanitarian objective compounds the external and internal pressures to deliver transfers, yet the central government holds very little bargaining power.

Ensure capacity to deliver resources. Harvey (2007) argues that the government is the most appropriate conduit for delivering cash transfers “where they have the capacity”, but this gives freedom for bi/multi-lateral agencies to adopt alternative channels. This may be necessary for emergency unplanned safety nets implemented following a disaster, but in our discussion of implementing safety nets *ex ante*, or planning them in order to implement *ex post* when needed, it is critical to invest in building government capacity to deliver safety nets, in order to strengthen the country’s resilience to hazards.

- The PSNP was the first time that the government had delivered cash transfers over such a widespread and frequent basis. It demanded installing a completely new supply chain within the government structure. At the start of the program, this was unwieldy, inefficient and harmfully slow, particularly compared with the delivery of food transfers, which had been the *modus operandi* in the country for decades. Four years into the program and the delivery record for cash transfers has overtaken that of food transfers. Of course, imposing such a dramatic change would not be feasible in an emergency, but it illustrates the need and success in building capacity.
- In Sri Lanka, there was a failure to ensure good technical advice during rebuilding after the Tsunami. Approval was slow as there was only one technical officer per district who had to visit and approve thousands of houses. It was an infeasible task to monitor and control all construction at each state in a timely manner. Moreover, the officers were often not sufficiently skilled in the specific types of construction, i.e. in cyclone-resistant housing.
- After Mozambique’s floods in 2000, USAID funded a project of cash grants of \$92 for approximately 106,260 flood-affected rural households (half a million people). A private consulting firm was contracted to implement the program. Recipients were issued with checks at distribution sites, while commercial bank tellers were on site to cash the checks. Private local security firms were contracted to ensure security during distribution. In the immediate term contracting out other activities such as targeting could also be an option, in order to establish programs quickly and with minimal difficulty.
- By contrast, the use of contractors can dissuade communities from being directly involved in the rehabilitation process. After the Tsunami, contractors were frequently turned to in order to rebuild

houses quickly, yet this discouraged beneficiaries to rebuild their own houses and circumvented the benefits that this brings such as investing in rebuilding one's own livelihood (see below).

Management & Coordination

- After the 2004 Tsunami, in Indonesia alone, in addition to the statutory government departments and district, province and central levels of administration, there were 125 INGOs, 430 local NGOs, thirty national and multilateral institutions and over twelve UN agencies in the clear-up and recovery phase. In the absence of either proper planning or coordination, it created competition and overlap.
- In Sri Lanka, for job creation and vocational training for those affected alone there were nine government agencies and ministerial departments involved. “Just knowing who was doing what, and where, was difficult.” (McMahon et al, 2006). The problem was exacerbated by the rudimentary communications, due to destroyed infrastructure (McMahon et al, 2006). At the core of operations in both Indonesia and Sri Lanka were new agencies to plan, coordinate and administer the reconstruction work¹⁷.
- In the Maldives, cash transfers were delivered to 53,000 affected people within one month of the Tsunami with delays for an additional 5,000. This was possible in part because of the small geographic size of the country and proximity of affected areas to the central authorities. The other advantage was that the government used the army, which was a simple and clear distribution system. Although this may not be appropriate in all contexts and may not be feasible in the long term, it can work as a short term measure, beyond the relief phase.
- In Pakistan, it took four months to identify beneficiaries, and transfers began in the fifth month after the earthquake. Pakistan was inhibited because a new government agency with no previous experience for delivering cash transfers was responsible for targeting, disbursing and monitoring, which inevitably led to delays. The problem was magnified because of the difficulty of delivering to remote locations and the effort of benchmarking in an area with a large informal economy.

Draw on existing safety nets, crisis response mechanisms and delivery systems: A key determinant in selecting the type of safety net program depends upon whether there are any pre-existing safety nets and how well these are functioning or can be adapted.

- Indonesia's KUBE social fund program had been run by the Department of Social Welfare since 2002. It targeted 40% of the population and it could have been a useful mechanism to build upon

¹⁷ In Indonesia, the agency was the Rehabilitation and Reconstruction Agency for Aceh and Nias (BRR). In Sri Lanka, the agency was the Task Force to Rebuild the Nation (Tafren).

after the Tsunami. However it was poorly operated, in this instance one of the problems being that it was led by volunteers.

- In Pakistan, there were already several cash transfers through the state provided social welfare. These include Zakat and the Bait-ul-Mall (PBM) to help the poorest with food purchases, and a subsidized wheat scheme, which were administered through local committees.

There was no clear indication of why neither Indonesia nor Pakistan drew on these existing mechanisms, although the research indicated that there were operational and corruption issues with each respectively.

- More successfully, after the cyclone suffered in Madagascar in 2005, the World Bank responded by scaling up existing projects. Two components were added to the existing Community Development Project and an emergency and water relief component was added to the Supplemental Credit project.
- A system such as the PSNP in Ethiopia could be a good example of how to build upon an existing program: the targeting, administrative and delivery system is in place and in the event of an emergency, it would be relatively simple to scale up. It would also provide an established and accountable mechanism for additional donors to contribute to, instead of the rather non-transparent 'black box' of emergency appeals.

Donor willingness to preempt rather than respond to crises

Donors can be slow to respond to appeals for assistance prior to a humanitarian crisis, due to the political and media attention that they receive back at home. This means that warning signs can be ignored and preventable problems can escalate quickly (Maxwell et al, 2008). In some natural hazards, safety nets can circumvent this problem by providing underlying support to vulnerable households.

- The Niger food crisis was anticipated from 2004 and the international community was approached that November and again in May 2005, with little assistance forthcoming. This allowed Niger to slip into crisis so that by July funding needs had risen exponentially. The UN calculated that "it would have cost \$1 a day to prevent malnutrition among children [in Niger] if the world had responded immediately. Now it will cost \$80 to save a malnourished child's life" (Alertnet quoted in Maxwell et al, 2008).

Several other examples are referred to throughout the paper. See sections 5.7 and 5.9.

3.3 The economic context

The case studies confirm that economic issues play a key role in making decisions about safety net design. They highlight at least three key economic factors that affect choices in deciding the type and the value of a safety net transfer. Care also needs to be taken that a ‘cash-first’ principle, which now guides many safety net transfer programs, does not remain exclusively cash when economic situations change and food becomes a preferred and more appropriate option.

The size of the national economy does not prescribe the type, size or frequency of transfers...

- Pakistan was one of the poorest countries affected by the Tsunami, but offered the most generous assistance, between 7%-48% of per capita GDP, whereas Sri Lanka provided 3% of per capita GDP and the Maldives from 1.4%-45%. In any case, they were all vastly higher than the (usually very low) regular benefit levels of the conventional safety nets these countries offered in non-emergency situations. In non-disaster years, Pakistan provides cash transfers of \$4-8 per household per month, Sri Lanka provides between \$1-10 and the Maldives provides \$40. Atypically, the Bait-al-Mal food support program in Pakistan that could be rapidly mobilized following the earthquake only provides two payments annually.

The vitality and configuration of local markets: Following an emergency, damaged infrastructure can block access to markets and delivery of supplies. In-kind transfers may well be the optimum response in situations where markets are not operating, whether due to supply constraints or inaccessibility from consumers, either physically or in entitlement terms. Conversely, providing cash transfers can also be an incentive to stimulate a sluggish supply side.

- During the crisis in Malawi, the government tried to protect household food security by imposing a moratorium on the price of maize. Maize could be purchased from the national food stocks held by the National Food Reserve Agency (NFRA) at MK15/kg, but could not be sold onwards above MK17/kg. This aimed to undercut rising maize prices in the private sector. In fact, it acted as a disincentive to traders who until then had supplied grain to the remote areas where it was more expensive to deliver. According to the government, it also led to private traders purchasing maize from the NFRA at the fixed lower prices and reselling it at prices exceeding the fixed MK17/Kg.¹⁸
- Conversely, in Mozambique, after the floods in 2000, food price inflation was high due to scarcity of food. USAID’s response was to fund cash grants to 106,260 flood-affected rural families, with good results. Money was used diversely, but predominantly on basic consumption, on purchases

¹⁸ Stevens, C., S. Devereux and J. Kennan (2002) The Malawi famine of 2002, July, 2. (Brighton: IDS)

made locally and the impact evaluation concluded that the grants stimulated the local and national economy.

Understanding labor market patterns and employment opportunities: The type of assistance will vary according to the needs of the people affected. Workfare schemes are applicable for those that have lost access to labor opportunities, in the short-term when livelihoods have been lost and they can also be valuable to aid the clearing up process, but this must be distinguished from other labor factors such as a decline in real wages. This may be applicable,

- Workfare was used in the aftermath of the Tsunami. Without their boats and nets, fishermen and women had lost their means to fish, at the same time, there was a huge need to clear debris and rebuild houses, so workfare was a useful mechanism to roll out as needed, on a temporary basis.

Fluctuating local economies can upset the real (and relative) value of transfers. Much of the literature focuses on recipients' preference for cash on an assumption that it provides more choice. However, if markets and prices are volatile, cash transfers can provide less stability than in kind transfers and in times of inflation will have to be increased to maintain parity.

- During the lifetime of Ethiopia's PSNP, prices have consistently increased, but the level of cash transfer has not kept pace. Moreover, the level of the cash transfer was based on a provision of three kilograms of grain per day, whereas the food transfer provided the three kilograms, plus pulses and half a liter of oil monthly. This has caused a shift in recipient preferences and disturbed endeavors to move towards cash transfers.

3.4 The social context

Good understanding of the demographics and social composition of the affected population is crucial for targeting. A lack of understanding of the affected population - the proportion of elderly, disabled, women, children and orphans and the existing network of formal and informal safety nets - can lead to inappropriate design decisions. Natural disasters affect women and men differently. In Aceh, only one woman for every three men survived the Tsunami. Particular attention must be paid to the disabled, whose numbers tends to increase in the wake of a disaster, but who are still often overlooked (Vakis, 2006).

- During the Bam (Iran) earthquake, a variety of safety nets were implemented to meet the range of needs among the affected population had access to a variety of safety nets: bereavement compensation (accessible by all), cash transfers to those on the Welfare Organization list (targeting the poor); and payments to orphans (targeting specific vulnerable groups). Such a comprehensive

approach was largely due to pre-existing channels: the local Welfare Organization had an effective registry system which began operating quickly after the disaster.

Choosing who to prioritize for assistance: Target all the affected population, regardless of wealth, or to concentrate assistance on the poorest. As the following examples show, this need not necessarily be a trade-off – but it depends upon the objective of the program.

- In Afghanistan, there was a repatriation effort in 1990/2 and 2002/3 to encourage displaced persons to return to Afghanistan. A cash grant was provided to cover the transport costs, regardless of wealth of the individual.
- In Somalia an asset criterion was established to support those most at risk during drought. Only households with less than 60 goats and/or without water tanks and/or without access to social capital were included.
- Oxfam's response to the Tsunami in Sri Lanka targeted three different groups in helping to recover livelihoods: small business owners, farmers, people engaged in the lace-making and coir industry. However, in Sri Lanka, although exclusion errors were low, inclusion errors were high. According to the Government, approximately 25% of beneficiaries were ineligible (65% according to the World Bank). Over successive rounds, targeting was improved with a far smaller number qualifying, although phasing in such targeting approach was sensitive.

Overcoming social dislocation and rebuilding social capital. In the rush to provide basic needs and build back shelter, attention to social capital can be marginalized and yet with a more integrated view of the short and long term, it is possible to help overcome the social dislocation which can result from conflict-related as well as other types of disasters

- Although a case related to conflict, this example also illustrates the ability to and value of building social capital: Those that fled conflict in Kosovo between 1999 and 2004 were given financial and technical support to rebuild their own homes. Evaluations reported that the repairs and reconstruction were completed more rapidly than other projects, to a high standard and moreover, had helped consolidate social ties. Involvement in the task of the construction work itself, contributes to the “best possible results” as it provides a psychological boost to post-disaster mental health recovery (Kennedy et al, 2007).
- A reliable safety net structure can build social capital and make it possible to avoid social breakdown in the aftermath of natural disaster. In Cuba which has strong welfare protection against disasters, “social cohesion tends to be reinforced rather than damaged by hurricanes.” Solidarity improves because of massive participation in the clearing up process. One local

government official remarked “We are educated to think of other people, and we think of everybody. This is what protects people...Solidarity is the key to all of this” (Oxfam, p40)

Consulting the community is paramount. Several of the above examples have shown that those participating in the transfer program may have a number of reasons for preferring a type, level or delivery method for transfers..

- During the Tsunami, Oxfam found that aid workers consulted the community but barely engaged them in program activities. Programs that are well-aligned with the long term priorities of the community reduces demands on their time, cultivates local ownership, capacity and sustainability. “If you want to know if a meal is tasty, you ask the diners, not the cook.” (Oxfam, 2008).
- At the same time, these expectations have to be carefully managed In Aceh and Sri Lanka, community consultations gave rise to unrealistic expectations. Western style housing was demanded because it was viewed as more sophisticated, even though such houses were less suited to the local environmental and climatic hazards (Kennedy et al, 2007).

3.5 Full information: data collection and early warning systems

As mentioned in 3.1 above, safety net responses have failed because of misanalysis of the situation, which focused too narrowly on the sources of risk and vulnerability. At an operational level, a poor understanding of the characteristics of the situation can lead to inappropriate decisions in the design of the safety net. Good data can be hard to come by so consequently greater attention needs to be given to collecting data and utilizing information from early warning systems. The following examples illustrate some implementation problems and delays that could have been avoided had the groundwork for the safety nets been better prepared. Of course, over-preparation and over-concentration on needs assessment can also lead to delays: inevitably, a balance between the two must be found.

- During the southern African food crises from 2002 to 2005, food insecure households were initially identified based on social criteria such as orphans, elderly and chronically ill people. At a later date, following in-depth reviews, WFP and NGOs decided that asset-ownership was a more appropriate indicator of vulnerability and this became part of targeting criteria (WFP, 2006).
- In Pakistan, earthquake resilience standards for re-building accommodation were re-set twice, to make better use of available materials. This caused delays and confusion in the recovery process. Housing reconstruction was extremely slow: of 236,673 houses under construction, only around 7.6% had been completed by spring/summer 2007. Oxfam reported that by the second winter (December 2006), only seventeen percent had even begun to build permanent homes. By January

2007, 35,000 people were still residing in well-supplied official camps with an unidentified number in ‘spontaneous’ camps.

- In Colombia, WFP initially assisted only those officially registered as internally displaced persons (IDPs) although these lists proved to be an inadequate for targeting the most vulnerable: many IDPs feared registering, or lacked information to register for assistance. Moreover, in some highly food-insecure areas such as Chocó in western Colombia, the resident populations were often in a condition as bad or worse than that of the IDPs, or in a condition that deteriorated rapidly when they took in IDPs. Following a joint WFP/IRC assessment findings community-based interventions, relying on the strong church network, were designed to benefit all those who required support. WFP conducted post-distribution monitoring to ensure that food-insecure families are being reached and that the targeting is perceived as fair.¹⁹

3.6 The policy arena and international institutional context

The short term commitments of international donors jeopardize success of safety nets. The discussion has already emphasized that the recovery and rehabilitation process is a long term commitment for both government and donors. The World Bank’s Independent Evaluation Group observed that the time needed to carry out disaster-related lending has been consistently underestimated. “The development community should engage with disaster-stricken borrowers earlier and stay engaged longer.” (IEG, 2007) After the initial humanitarian phase and once a disaster has left the public eye, pledges are frequently dropped and long term resources are not forthcoming, severely inhibiting the recovery process. This is particularly true in politically volatile situations. Indeed, the knowledge that funding may only be available for a short time gives an incentive for government departments and NGOs to access as much money as they can before it dries up, which could lead to higher inclusion errors and greater risks. If fears of this were assuaged and governments, implementers and recipients could feel secure that there was access to funding, it may reduce some of the moral hazard that hinders funding.

The timing of procurement and funding procedures effects implementation. The release of funds is often delayed due to disbursement and contracting procedural rules. Safety nets need to be designed with specific plans as to how to supply resources in an emergency. A successful example of this was the World Bank’s response to Hurricane Mitch (through a social fund).

- Following Hurricane Mitch in October 1998, the Honduran Social Fund simplified its project cycle. The required procedures were reduced from fifty to eight and procurement procedures were

¹⁹ Assessing needs in Colombia: Building an information base to improve targeting (WFP, 2006).

simplified also. At the same time, safeguards could be maintained in order to ensure accountability and transparency. Within 100 days, 2,100 projects had been approved by the Fund, a total of \$40 million. Within 14 months around 3,400 emergency subprojects had been financed, an implementation rate four times higher than the average before the Hurricane. (Grosh et al, 2008).

International response to natural hazards needs better coordination. Current international disaster risk strategies such as the Global Facility for Disaster Risk and Recovery (GFDRR) focus on a DRM framework and so concentrate on infrastructure and coordination activities. As social protection and safety nets become integrated into a broader understanding of disaster risk management, so could multi –donor initiatives be valuable in helping secure international commitment.

Program implementers need to educate the political arena, where negative connotations with cash transfers still persist and limit the scope of safety net programs. While practitioners and academia seem convinced by a ‘cash-first’ principle for safety nets, policy-makers and appropriations offices tend to remain suspicious that cash may be ‘mis-spent’, particularly if put into the hands of men. Donors too, can still have difficulty with their reduced control over beneficiaries if they provide cash rather than in-kind transfers. In the past, donors often had a preference for distributing food, because it intuitively seemed more appropriate and particularly because they had ready access to excess food stocks. These reasons have sometimes superseded what would be most beneficial for the target group. In the recent climate of high food and fuel prices, food transfers may be decreasingly attractive to governments and donors, although with the current lack of liquidity, food-aid may again look preferable.

4 Ex ante preparedness

Disaster Risk Management conventionally focuses on ex ante measures that are primarily infrastructural prevention mechanisms, such as construction regulations of infrastructures, such as dams. Social protection and safety nets on the other hand, are mechanisms employed both ex post, to help cope with the aftermath of a shock, but also ex ante, to improve households' resilience to shocks, in addition to reducing poverty more generally.

A two-pronged approach needs to be taken.

(i) To provide safety nets which reduce poverty as well as build longer-term resilience to withstand the most frequent natural hazards. This impact on decreasing vulnerability to natural hazards is rarely considered in the literature or in programming. de Janvry et al. (2006a and 2006b) show that conditional cash transfer programs in Mexico, Nicaragua and Honduras have been effective in preventing the loss of child human capital (i.e. children being taken out of school) after households are hit by uninsured shocks. The provision of social welfare for poverty reduction/household asset building and protection against shocks ex ante, are not mutually exclusive.

(ii) To strengthen existent systems that can roll out safety nets in response to emergencies. This is still not conventional in safety net design, particularly in sub-Saharan Africa, where provision of state-run safety nets is patchy. It results in reactive responses, which waste time and resources setting up emergency programs, rather than capitalizing on improving existing implementation chains, ready if the need occurs.

Building political will for preventive (ex ante) safety nets is difficult and may even seem politically risky. As hazards continue to be measured in terms of disaster that have occurred, not been averted and as disasters are measured in the lives lost, not saved, there is limited conclusive proof of the effectiveness of safety nets when they have been instituted ex ante, to help people cope with natural hazards. Furthermore, using limited resources to finance preventive measures can have a lesser priority compared with the daunting task of reducing chronic poverty.

However, there are ways to justify to policy makers that such investments are necessary.

(i) Reducing poverty and building resilience to natural hazards are complementary processes, particularly if policy makers come to understand natural hazards as embedded within the problem of poverty and as manageable, rather than exogenous, uncontrollable events.

(ii) There are numerous examples that prevention is cheaper than cure (relief activities), in reducing the impact of disasters (IPS and Oxfam, 2006, IFRC, 2002, DFID, 2004).

(iii) Further attention to climate change and to erratic weather patterns validates at the very least, an assessment of whether putting an *ex ante* mechanism in place is justified. The following table summarizes how preventive safety nets can be used with the hazard risk framework.

Table 4. Disaster risk and ex ante social safety nets

Hazard Risk	Use of social safety net, <i>ex ante</i>
Slow onset disasters	High use: on a continual basis to counteract poverty. Scale up when more are exposed to shock
Medium risk events	As part of contingency planning, in conjunction with preventive measures
Low-risk, high impact events	Lower use: although may be part of a national contingency strategy.

Two examples of *ex ante* mechanisms are Bangladesh’s National Disaster Management prevention strategy, and Ethiopia’s Productive Safety Net Program (PSNP). The effectiveness of both has been tested in recent years. The Bangladesh case includes a sequence of five rapid-onset hydro-meteorological disasters, from the floods of 1998, to Cyclone Sidr in November 2007. The Ethiopian case illustrates the benefits of an *ex ante* plan to mitigate the risk of a slow-onset event, when vulnerability and chronic poverty had become so protracted that the poor could no longer withstand even minor shocks. A chronology of events and description of these programs is provided in Annex 1.

4.1 Flood and cyclone response in Bangladesh: the importance of an ex ante disaster risk response strategy

The Bangladesh case illustrates the importance of how the policy and economic framework are a significant part of managing risk. The government had already made two critical longer-term policy changes which fortuitously helped in flood management. Firstly, as part of its production growth strategy, it encouraged the private sector thereby sustaining supply, stabilizing prices and maintaining households’ purchasing power. Secondly, it promoted the production of winter crops, which decreased dependence on flood-sensitive monsoon season crops. Concurrently, it provides safety net support to affected households through two already established programs, Vulnerable Group Feeding (VGF) and Gratuitous Relief (GR). VGF provided assistance to chronically poor female households. GR is an *ex ante* arrangement for disaster response assistance originating like the Maharashtra Employment Guarantee Scheme (MEGS) in the Indian Famine Code.

Despite huge floods in September 1998 and the loss of ten percent of annual food consumption, these safety nets combined with the longer-term changes in economic structure meant that recovery from the floods was relatively rapid. By April 1999, income for flood-affected households had increased 45% on that of the previous December following the floods and a further 50% by the following November. The openness to private markets helped stabilize prices and maintain households' purchasing power. Regression analysis indicates that the impacts of the food transfers combined with trade liberalization contributed between 64 and 133 kilocalories to each persons' daily consumption. Without these changes in trade policy, it is estimated that targeted transfers would have had to be 3-5 times higher to make the same calorific contribution (del Ninno, Dorosh and Smith, 2003; Dorosh, Ninno and Shahabuddin, 2004.).²⁰

By 2007, Bangladesh had developed an integrated policy towards natural disaster, which began with the Cyclone Preparedness Program, effectively an alert and evacuation plan. When the Cyclone, hit the mainland in mid-November 2007, the National Disaster Management Strategy which was primarily intended as a national response to river floods, provided assistance. Management of the event was carefully prepared and authorities could tap into existing risk management plans. The Early Warning System (EWS) triggered the safety nets which began distributing cash, rice and house-building grants, even before the main impact of the cyclone was felt. While results were by no means adequate – there were still a tragic number of deaths, cyclone shelters were of a sub-optimum standard, and NGOs concentrated even in the post-relief phase, on in-kind relief – a mass evacuation and re-accommodation of 4.5 million citizens within five days²¹ is a staggering achievement. In section 4.3 below, we outline some of the factors that made this possible.

4.2 Scaling up safety nets in Ethiopia

The second example is the Productive Safety Net Program (PSNP) in Ethiopia, which was established partly in recognition of the high number of chronically poor that face the increasing frequency of droughts which Ethiopia now experiences at approximately three yearly intervals (World Bank, 2004). This situation (or that of Malawi from 2002 onwards) is an example of the disagreement in classification between a slow-onset *natural* shock – which may be more politically acceptable - and what may be more accurately characterized as conditions of chronic vulnerability whereby the poor are unable to withstand any climatic variability. Despite the disagreement, the hazard is a trigger.

²⁰ This did not avoid considerable socioeconomic disparities. While it was relatively easy for some flood-affected households to recover, for the poorest it was far more difficult. Household borrowing was extremely high and averaged 146% of one month's consumption for the 64% poorest of flood-affected households.

²¹ Background research on Bangladesh Cyclone Sidr, for this paper

The PSNP targets two groups. Its primary target group is the chronically poor that need ongoing support to maintain consumption levels and prevent asset sales when faced with shocks. They are provided with food and/or cash to support the household and contribute to public works in order to build community assets. Many of these activities involve protecting and rehabilitating the environment so that the communities become less vulnerable to adverse weather. The second target is the transient poor. In addition, those that require assistance when faced with idiosyncratic or localized shocks are funded through a contingency of 20% of program resources.

To cope with larger scale, covariate shocks, there is a second component of \$25 million to scale up the program to reach additional people. This is triggered by an early warning system of weather-related indices (Box 1). These aspects combined, makes Ethiopia better placed to withstand shocks. The process is still in transition, but building a new government supply chain of cash to the rural areas has marked a shift from the previous *ad hoc* emergency appeal system to a more predictable and established system, as well as from food only towards cash-based transfers.

Box 1. Weather-based risk financing under the PSNP

“The index proposed for Component II [the drought-risk financing component] is an upgraded version of the Ethiopia Drought Index (EDI) developed and piloted in Ethiopia in 2005 to trigger insurance payouts in the event of contractually specified shortfalls in precipitation. The EDI was based on rainfall data taken from 26 of the best weather stations distributed throughout the agricultural areas of Ethiopia. The EDI was designed to proxy total drought-related agricultural livelihood losses (in US\$) experienced by the ‘at-risk’ population living in areas that could be associated with these 26 weather stations in severe and catastrophic drought years. The historical EDI shows an 8- percent correlation with the total number of historical food aid beneficiaries from 1994 to 2004, but more critically it picks up the well documented catastrophic drought events that have occurred in the past 5 years, specifically 1965, 1984 and 2002. For the APL II period, the EDI for agricultural areas will be improved with localized agro-meteorological coefficients, more weather stations and satellite-based rainfall estimates which will allow regional index triggers to be established.”

Source: PSNP Project Appraisal Document, paragraph 238, pp58-59, 2006

The system was seriously tested during 2008’s failed rains, food shortages and unexpected food price inflation. In May 2008, with the failure of the small rains and the upward trend in food prices, UNOCHA announced a food deficit for 3.44 million Ethiopians, a number that increased to 8.6 million, in subsequent UN assessments. Rather than providing an example of an adequate response, the experience in 2008 raises further questions as to how to improve assistance in ‘drought’ years.

Without PSNP support, the situation would have been even more critical. The alert was first raised in November 2007, but not until June 2008 was the matter acknowledged and seriously discussed between donors and government. What has accounted for such a slow response? The problems were both practical and political and are identified below in section 4.3.

4.3 Implementing social safety nets ex ante: Lessons learned

Bangladesh and Ethiopia contribute to the substantial body of evidence, to suggest that safety nets can make a valuable contribution to prevent disaster. Safety nets need to be incorporated as part of a country's disaster management plan, rather than in reaction to an event. Bangladesh is an example of an administration that was prepared for Cyclone Sidr. Conversely, in Malawi, Niger and during the Tsunami, their insufficient early warning systems were one of the contributing factors to the disasters.

Until now, risk reduction strategies have tended to be imposed in response to a major disaster, rather than protect the vulnerable from an impending shock. For example the risk reduction components of Malawi's Social Action Fund (MASAF) arose in response to the drought of 2004/5, and Ethiopia's PSNP came about after years of inadequate emergency response to repeated food crises due to inclement weather and exacerbating vulnerability. In Malawi, MASAF has been integrated into the government's overall disaster response, a step which Ethiopia has yet to take. In Niger, donors have made attempts to improve the early warning monitoring system and developed new response mechanism policies.

In summary, the adequacy of an ex ante response depends upon: **a) prepared prevention and response plans; b) effective early warning systems; and c) the capacity to implement the plans.**

A number of important lessons about *ex ante* decision-making can be drawn from these two examples and a summary of the issues to consider for when incorporating existing safety nets into emergency plans is summarized in the Annex.

1. ***A national emergency plan is necessary to respond to shocks anywhere in the country.***

While the PSNP is an ongoing program with the means to scale up during small shocks and a risk-mitigation component to scale up during larger emergencies in select areas, unlike in Bangladesh, Ethiopia has nothing that operates at a fully national level. Instead, the government is still reliant on emergency appeals as a last resort. National emergency plans need to lay out clear lines of responsibility and be able to draw upon existing systems of targeting, delivery and reporting. The examples highlight the need for the

support and cooperation of all stakeholders to help implement a disaster management plan, including the private sector, construction companies and local administration

2. ***Establishing effective safety nets takes time.*** In the two examples, there was a long term commitment to institute safety nets that could mitigate the impact of shocks. In the Bangladesh case, this was supported by a number of years of policy reform. Both recent crises illustrates that the impact of safety nets can be effective, as long as the foundations are well-laid. Such commitment often arises as a response to crises.
3. ***Early warning systems must be responsive to various types of shocks and different levels of vulnerability.*** Ethiopia's current early warning system (EWS) is a weather-based index which proved to be inadequate in 2007/8. Like Malawi in 2001, the EWS in Ethiopia failed to predict the food crisis in time because the indicators were not sensitive enough to the changing levels of vulnerability in both countries. Developing a more appropriate EWS, beyond the standard harvest and weather indicators to include poverty, vulnerability and population indicators has been more difficult, although they are coming to the fore, and Malawi's Vulnerability Assessment Committee uses a wider set of economic, agricultural and weather-related indicators to measure food needs. Problematically the PSNP EWS is based solely on weather-related indices (Box 1), whereas as the food and price events of 2008 exemplified, people are vulnerable to numerous types of shock. If the PSNP is going to continue to aim to meet the consumption needs of the chronically and transitorily food insecure, then a risk management strategy based on one group of shocks is clearly inadequate. Different groups will have varying response to a type and level of shock and early warning systems must be sensitive to this and be able to disperse information effectively to different vulnerable groups (Oxfam, 2006). In Niger, despite efforts and available climatic, production, and food security data, the national, regional and international early warning systems were not able to predict in an accurate and timely manner the magnitude, scope and location of the drought in 2005 which determined the devastating food crisis. While some institutions warned of a food crisis in drought-affected regions as early as December 2004, these predictions were based primarily on data concerning drought and production shocks. In addition, once the most vulnerable regions were identified in May 2005, this process was not without problems (Aker and del Ninno 2008).
4. ***The EWS must trigger a clear course of action.*** Bangladesh's emergency response came into action as soon as the storm warning for the cyclone was issued and resources were already available without a need to launch an appeal. Potential victims already started receiving support even prior to the event. By contrast, in Ethiopia the current crisis only

began to be addressed in June 2008 instead of pre-empting the crisis when it was first identified in late 2007. Ethiopia's new EWS should help overcome this problem. An effective EWS must trigger a disaster management strategy including scaling up safety nets and activating other mitigating mechanisms.

5. ***Ensure that procedures can be modified and simplified in the event of a crisis.*** To speed up response times, both donor and implementing agents need to find shortcuts in processing and funding and to relax or simplify targeting and payment procedures. Ethiopia's disaster prevention strategy reduces procurement and contracting regulations in order to have food transported rapidly to affected areas. This was employed, under the PSNP during the food crisis in mid-2008. The World Bank enabled rapid disbursements under the Honduran Social Fund, following Hurricane Mitch (Grosh et al, 2008).
6. ***Safety nets must be scalable, to cope with future shocks.*** In recognition of this, the PSNP was re-designed to be scalable, under a \$25 million risk-financing plan which can disburse rapidly when triggered by a weather-related early warning system. If it had been operational in 2008, it could have avoided the delay in acknowledging that there was a crisis situation. It is expected to be up and running in time to estimate effectiveness of the first rains in 2009. In terms of human capacity, under MASAF, the infrastructure is built at community (rather than national) level therefore there is little need for extra personnel when a shock occurs.
7. ***Establish reliable funding sources.*** In Ethiopia there is no secure, planned mode of financing that can be accessed outside of PSNP resources to cover people suffering from shocks and still retains the Emergency Appeal as a last resort. Yet this process is less reliable, transparent, or accountable and more vulnerable to the whims of donors, than the structured PSNP system - which has helped build trust between government and donors and between government and its citizens. A multilateral mechanism like the Global Facility for Disaster Risk and Recovery (GFDRR), which predominantly focuses on infrastructure and coordination projects, might be worth exploring for safety net and social protection responses to natural hazards.
8. ***Shocks affect different socioeconomic and livelihood groups differently.*** There is a need to better understand these nuances in order to adapt programs to better meet the variations in need of different groups of people.
9. ***Monitoring and regularly updating information is vital.*** The first priority of the PSNP is to protect those registered on its program within sub-regions identified as food insecure. Yet the list of food insecure districts has not been revised in a number of years, and there

are consistent reports of chronic food insecurity in new areas. This jeopardizes the ability to either accurately plan or achieve the goals of the program.

10. ***Maintaining food reserves for emergency needs.*** Reminiscent of Malawi in 2002, the Ethiopian government food reserves were drained and not replenished. In 2008 a year when double the food resources were sought compared with a non-drought year, this forced the government to purchase on higher-priced international markets, which enormously delayed the supply of emergency food.
11. ***Confidence in the SSN response assessments:*** In Bangladesh in 2007 donors and NGOs were unwilling to support the national SSN response. Instead many did their own assessments and organized parallel ‘partial’ response programs creating a complex confusing post-cyclone relief and rehabilitation effort. This was difficult to coordinate and made public financial management of funding more difficult.
12. ***Protective safety nets complement a preventive approach: Construction Standards, regulations and policy structure.*** Safety nets operate best in tandem with other complementary activities and policies. Questions need to be asked as to what can be done to both infrastructure and the policy environment to help safeguard against disasters. The success of Bangladesh’s safety net was helped by the previous policy reforms of privatization and boosting non-monsoon crops, to ensure food supply and avoid price hikes when people were most susceptible. The importance of standards and regulations was tragically exposed during the Chinese earthquake in May 2008, when the collapse of so many schools was found to be due to sub-par construction. Even before the earthquake, it was observed that this was a country with “outstanding building codes, [yet] the constructions, even new ones, are still often substandard.” (Demeter, 2007, 5), One of the criticisms leveled at the reconstruction work following the floods in southern England in 2007, is that houses have been rebuilt to poor standards that will not be able to withstand similar calamities in the future. Standards can also be used to protect the natural environment: impeding land degradation, overgrazing and deforestation, which can exacerbate the impact of a natural calamity. *Ex ante* public works safety nets can help this.
13. ***Awareness of where internal political dimensions may impede progress.*** There is a political tussle for resources, as government departments want to protect their resources and territory. This needs to be anticipated in program design and areas of responsibility and accountability need to be clearly defined. In Ethiopia it hindered delivery of transfers, even in the emergency situation as departments traditionally responsible for responding to emergencies were answerable to the department managing the PSNP, which was seen as a

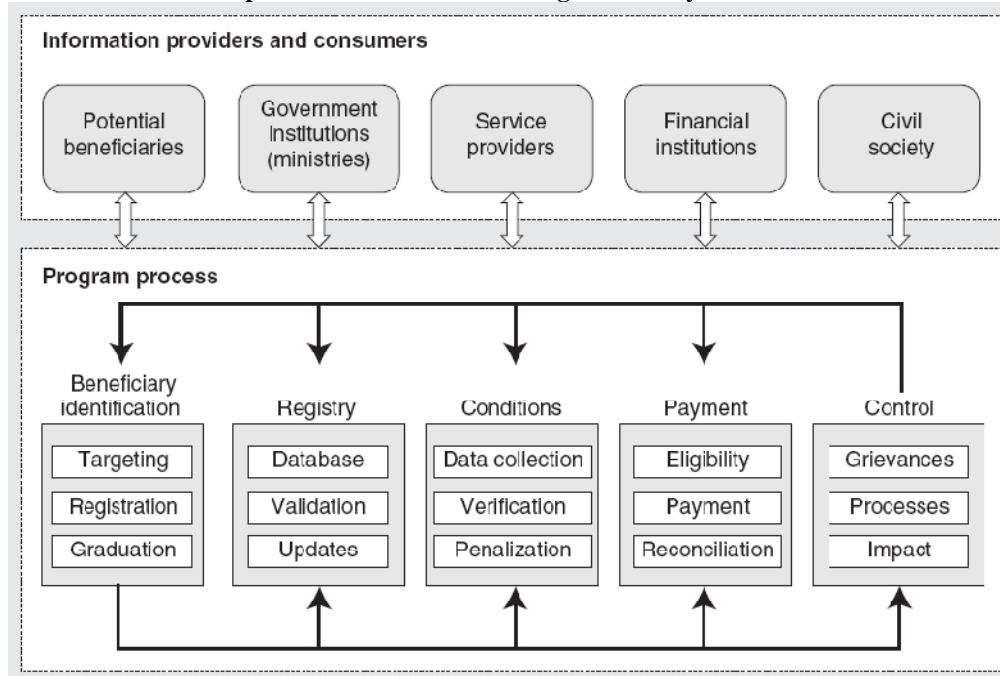
general, 'non-crisis' food security program. *Poorly planned safety nets can lead to additional risks for participants.* It is necessary to consider and mitigate other issues that may arise as a consequence of participating in a safety net. For example, it can lead to an increase in private debt or in school dropout rates.

5 Design and implementation of Safety Net Programs

This section explores ways of operationalizing the observations in the previous chapter. Good safety net design does not automatically translate into high quality implementation. From inclusive targeting practices to ensuring that cash payments are provided in easily dividable denominations, the effectiveness of a safety net is in the capacity to deliver and the implementation detail.

In their recent book, Grosh et al (2008) outline the hallmarks of a good safety net program. It should be: **appropriate** and well –balanced with the country’s other policies; coverage should be **adequate** to include those most in need; it should be fair and **equitable**; it should maximize the benefit to the target group by being **cost-effective**; if it is **incentive compatible**, it will encourage positive changes in household behavior; it should be fiscally and politically **sustainable**; and **dynamic**, in that it evolves over time. These are useful guiding principles although in designing short run safety nets in an emergency, some of these characteristics may be relaxed (Grosh et al, 2008). Numerous processes have to be considered in the design of a safety net. Initially, this involves identifying the sources of informants and the stakeholders (Figure 4).

Figure 4. Stakeholders and processes involved in the design of a safety net



Source: Arribas-Baños, Maria, and Cesar Baldeón. 2007.

Recalling the SRM framework, safety nets can be used in different ways depending upon the type of shock and while they may be combined in numerous permutations, the core structure of the design is constant. In Section 3, we defined six contextual areas to determine the parameters of a safety net. Each of these impacts at least one feature in designing a safety net, this is summarized in Table 5.

Table 5 Summary of safety net context and design issues

Contextual Issue	Safety net design feature
1. Defining the narrative & determining the type of natural event (slow/rapid onset)	Framing objectives and goals; deciding transfer type; duration of assistance
2. Defining the narrative & knowledge of the demographics	Type of transfer, targeting
3. Geographic & demographic spread of event	Targeting
4. Socio/politico/economic circumstances	Assistance, targeting, delivery
5. Infrastructure & human capacity	Implementation & delivery
6. Resource availability & international context	Size, type & duration

Of course, the above factors are not discrete. In practice, designing safety nets will involve balancing the interests of three sets of stakeholders: the target group; government, including its varying institutions; and donors and/or other external bodies. In decentralized contexts this can give rise to a principal-agent problem, where the central government is the main coordinator of the program, with specific ideas about how to administrate it, without the authority to regulate the main implementers of the program, at sub-national level (Grosch *et al*, 2008). This problem is starkly visible in the case of Ethiopia's PSNP (section 3.2).

The primary focus should be to capitalize on existing effective mechanisms as much as possible, adapting them to the situation as necessary and to consider how safety net activities will need to transition from the short to long term. It will require contingency plans to scale-up existing mechanisms in the event of disaster and plans to deal with the ways that existing mechanisms might become disrupted. Many of the issues discussed here apply to safety nets in general and so will be familiar but are equally important to consider in designing safety nets for emergencies.

Ultimately, the success of a safety net program is in the implementation. If the transfers are delayed, if it is unsafe or costs too much for a recipient to collect, if there is insufficient recording of the distribution, or registering for the transfer itself has too many limitations (possible problems are requiring photos, birth date identification, etc.), then regardless of the appropriateness of the program, the objectives will not be met.

The main design features discussed in this chapter as outlined above are program selection, targeting, implementation/delivery and monitoring and evaluation. This section sets down the guiding principles for decision-making in each of these areas which need to be considered in conjunction with the contextual issues discussed in section 3. It does not attempt to be a comprehensive toolkit – a number of which exist already²², but it does aim to approach the design from a contextual perspective adopted in the previous chapter. Each section concludes with a checklist of the questions that need to be asked and points to consider.

5.1 Selecting the implementing agent

As one of the tools the state can employ to protect its citizens as part of a social risk management strategy, this section concentrates on government implemented safety nets, although in reality they may be hybrids, with aid agencies playing an implementing and some activities being contracted out to third parties that can handle the workload more deftly (see Subbarao et al 1997 on the institutional framework and implementing agencies in public works programs). Other actors that can implement safety net programs include civil society, local and international non-governmental organizations, multi-national financial institutions, the United Nations and other donors. Within government, safety nets are typically, housed within ministries or departments of welfare. In some cases they are accommodated within the agricultural ministry (the United States' Food Stamp Program) or ministries of finance (in SADC countries, this is more usually reserved for employment-related transfers or even pensions). While there is no norm for *where* a government safety net should be housed, the following provides some general guidelines on how to make the decision and to manage it.

- **Awareness of government commitment to the program at all levels.** Proximity to the treasury can be indicative of the importance the government attaches to a program and be a better guarantee that it will remain funded. Buy-in is needed not just at the highest level, but it may be necessary to strengthen the commitment of the implementing department and down to the lowest level administering the program.
- **Assess the adequacy of human resources** to manage the quantity of work and to provide monitoring and quality control and **capitalize on the skills of different departments.**
- **Coordination between departments is paramount,** even though competition for resources and for recognition can make these relationships difficult.

²² Among others see, on institutional home for safety nets: Mathauer (2004) Institutional analysis toolkit for safety net interventions. Social Protection Discussion Paper No. 418, August (Washington, D.C.: World Bank); on targeting: WFP (2006) Targeting in emergencies. Policy Issues Agenda item 5. WFP/EB.1/2006/5 A. First regular session of the Executive Board, 20-23 February, 2006. Rome. (Rome: WFP); and on monitoring and evaluation: Oxfam GB (2007) The Good Enough Guide: Impact measurement and accountability in emergencies. February (Oxford: Oxfam GB); A guide to programming in emergencies: Care International Emergency Toolkit <http://careemergencytoolkit.org/home/>

- Consider where and **how the community can contribute to knowledge and management of the safety net** at the local level. Although this will require monitoring, it can ease some of the pressure on the government, tailor the program to local needs as well as transfer responsibility into the hands of the community. There is wide scope for drawing on the community. Most usually they contribute in targeting, appeals and local-level planning. Further involvement could be in aspects of transfer distribution, program design and monitoring activities.
- There is a tenuous equilibrium in balancing the different and at times conflicting interests of stakeholders. **Tacit awareness of the tensions** between government departments, central and local administration, between the government and communities and government with donor/technical assistance is critical in assigning functions and responsibilities when designing the program.
- The implementing agent of a safety net must have the capacity to deliver the program, the political standing within government and good relations with other stakeholders. This requires an **institutional analysis prior to safety net design, with an ongoing training program for implementers**. To give a sense of frequency, in Somalia, implementing organizations were required to attend a 2-3 day training every 6-7 weeks, to discuss problems and share experiences (Majiid, 2007).

5.2 Choosing the type of instrument

There are three options as to the type of transfer that can be given. Transfers may be in cash, or in kind (including food), (or a combination of both), or via a voucher system. As previously discussed, determining the type of safety net will depend upon the context: the types of need; the appropriateness of the desired safety net, given the prevailing context, and any pre-existing safety nets. In addition, designers may decide to impose conditionality on the transfer – either by enrolling able-bodied adults to participate in public works, or by attaching a health or education condition to receiving the transfer.

5.2.1 *Cash, in-kind or vouchers?*

This section outlines some of the major arguments for and against the three different types of transfer, mainly as they relate to natural disasters and the major contextual issues outlined above: it is not meant to be a comprehensive list of the pros and cons of different transfers which have been well documented elsewhere, as well as in toolkits for implementation²³.

²³ Analysis: Bailey and Savage, 2008; Harvey 2007, 2005; Peppiatt et al, 2001. Toolkits: SCUK/Food Economy Group 2008, ICRC, 2007, Oxfam 2006, WFP 2006, CRS 2004, Mercy Corps 2006.

In general, a cash-first principle is becoming increasingly commonplace and a growing evaluative literature advocates the use of cash rather than in-kind transfers, but for emergencies arguably a cash-first approach is still underutilized (Harvey, 2005 and 2007). Partly this is due to a lack of thorough understanding about the impacts of transfers on the local economy and livelihoods, leading to insufficient attention to market assessments during emergencies (World Vision, 2008), hence transfers in-kind can seem a safer option. Yet there is evidence, most recently from Somalia and Swaziland, of the positive impact that cash can have in emergencies.²⁴ Even during conflict in Somalia, cash could be delivered and distributed safely and was less prone to diversion than food transfers. This gives weight to the argument that **cash transfers need to be mainstreamed in disaster preparedness systems** (Devereux and De Jere, 2008). Several NGOs are currently developing a market-mapping tool to overcome this problem.²⁵ As cash has come back into vogue, the literature has tended to become polarized, defending cash and kind transfers as a discrete ‘either/or’ decision. Yet expectations should be modest as to what cash transfers can achieve. (Bailey, 2008) and a successful program can only really work in conjunction with other programs. A fluid system which either provides a mixed package of cash and in-kind transfers, or that can respond to changes in need during the program may be more suitable. Indeed, there is a growing body of evidence from safety net programs to suggest that beneficiaries prefer this hybrid approach (Devereux and Jere, 2008; Pelham, 2007; Peppiatt, 2001).

In industrialized high-income countries, cash has an extensive history in social welfare payments as well as in emergency response, both as insurance and as relief. In developing countries, providing **cash transfers may take time and determination to put in place**, but this is no reason for not persisting. As Ethiopia, which practiced food distribution since the 1970s, has done. Despite teething difficulties and severe delays in providing cash transfers, within several years, under the PSNP, cash distributions were out-performing food transfers in both delivery speed, and timeliness. This need for substantial preparation strengthens the argument for providing and planning safety nets, ex ante, to protect against natural disasters.

Ultimately the choice for type/types of transfer will require triangulating recipients’ preferences, the economic appropriateness and the practical reality of implementing a particular transfer. Whatever the transfer type, increasingly there is a call for transfers to be complemented with nutritional supplements for children.

²⁴ See Majiid 2007, on Somalia and Devereux and De Jere, 2008 on Swaziland

²⁵ Oxfam, IRC and Practical Action

Economic issues

In order to decide the appropriate transfer, ICRC guidelines ask three main questions about the local economy: (i) Are markets functioning or likely to recover quickly? (ii) Will people be able to buy what they need locally at reasonable prices? (iii) Is there a risk of inflation and could cash transfers cause inflation? (World Vision, 2008). Of course, these questions must be asked both of program participants, as well as those outside the target group. The advantages of cash transfers are largely due to the potential for **positive externalities** with cash rather than in-kind transfers, all things being equal. On the negative side, cash is particularly susceptible to changes in the market and some program administrators have less experience with cash over other transfers, which can be difficult if being administered in haste, during an emergency.

- **Benefits to the local economy:** Both cash and vouchers can help stimulate local markets, whereas in kind transfers involve more interference in markets - although this can be advantageous in the short term, if there is poor supply in the markets. Vouchers can also help stimulate local markets, as long as enough sellers can register to accept vouchers. Vouchers can be somewhat less interfering as they let the market take responsibility for distribution, although there must be confidence that there is sufficient supply. Moreover, vouchers are typically used to purchase seeds, which in a post-disaster situation can be particularly useful as it can aid in linking farmers with the commercial sector and stimulating the re-emergence of a seed market, particularly where it has weakened after a crisis. Imported in-kind transfers can negatively affect producers by depressing local/national prices of the good, although local purchase can help mitigate this. They can “undermine private traders, market recovery and local producer incentives” (World Bank, 2007).
- **Transfers in times of inflation prices, or cash or commodity scarcity.** Vouchers and in kind transfers are useful when there is a lack of cash in circulation or a lack of supply to local markets. In times of inflation, a cash transfer will rapidly devalue . This was the case in Ethiopia where PSNP cash recipients saw their purchasing power more than halve between February and July 2008 (Save the Children, 2008). However, food and in-kind transfers are more likely to retain an intrinsic value – hence Save the Children have found that irrespective of price, PSNP participants do not trust that cash can meet their needs (Save the Children UK, 2008). Vouchers can also be useful in times of rapid inflation, as long as they are specified in terms of ration quantities rather than as a cash value. While transfers in kind are less affected by inflation for the *recipient*, the *provider* is still susceptible to the price of the transfer increases. During the food crisis, WFP experienced a 55% increase in the cost of food purchases between June 2007 and late February 2008, followed by a further 20% increase in costs in the first half of March (WFP, 2008). The

more the market bears these costs, the lower should be the expenditure for the implementing agency.²⁶

- **Transfers can lead to price fluctuation on local markets.** A large cash injection can cause price inflation - which could be particularly harmful for non-recipients, although this has not generally been observed in reality. In northern Somalia, cash recipients in a program run by Horn Relief, gave their transfers to local shopkeepers to open lines of credit, so that there was no sudden increase of cash in the local economy. Inflation can also be guarded against by ‘tweaking’ the amount and frequency of the cash transfer. Conversely, in-kind transfers can cause rapid price deflation. This has negative impacts on local producers/sellers and would offset the benefits of the program. Vouchers can help mitigate the problem of deflation, but they can be exploited by traders who provide only smaller quantity or inferior value goods. One way to overcome the problem of price fluctuation is to combine transfers. Malawi’s MASAF combined a cash wage for participation in public works programs, with a greater value grant in vouchers, for the purchase of agricultural inputs.

Questions about the target group

In general, participants’ preferences are most likely to be determined by economic factors. But they may not have full market information and will also be influenced by other non-market decisions, such as the ease of collecting a particular transfer, household composition, etc.

- **Flexibility for consumers:** In *normal* circumstances where markets are functioning and well-stocked, cash provides unsurpassed choice and flexibility to recipients whereas transfers in kind can be utilized in fewer ways and are therefore more rigid. Food has a more direct impact on consumption, whereas cash has a more direct impact on asset accumulation (SCUK, 2008).
- **Cash can maximize household choice**, because it is more fungible than other transfers. Therefore cash allows the household to decide how best to allocate their money and meet other urgent needs, although consequently it can be more difficult to be confident of meeting the program objective. In kind transfers do not necessarily assuage these concerns. For example households may still ration their consumption and sell food transfers in exchange for other preferred goods. Yet both in-kind transfers and vouchers (which usually stipulate more precisely what may be purchased), can be more specifically directed at the objective of the safety net transfer, (such as nutritional and consumption objectives). Therefore it is important to balance providing the right type of good to meet program objectives with what goods are desired by recipients.

²⁶ This was the case in Cambodia, in 2003. Cash grants alternative to a transport and food aid package were provided to encourage families to return from refugee camps in Thailand. This cash grant reduced costs for UNHCR, as they did not have to provide the families with house-building kits

- **Cash is seen as less paternalistic and more empowering** as decision-making power is transferred to households, rather than retained with the donors/program implementers. This benefit may be even more pronounced if it is disadvantaged groups, such as women and the elderly that receive the cash directly. Swaziland is just one example where women have been found to benefit from cash transfers (Devereux and de Jere, 2008). Vouchers can enable program providers to keep control over the program in a slightly more hands-off fashion than with in-kind transfers and so can provide a little more independence to recipients.
- **Consulting beneficiaries' preferences** Recipients have justified reasons for preferring particular transfers, affected by travel costs, safety, time costs etc., hence the imperative of asking recipients directly about the preferences, and to frequently review this for longer term programs. Nor can preferences be accepted at face value as recipients may request the type of transfer they believe they are most likely to receive. This exemplifies Peppiatt's argument that communities are more than capable of "determining their best needs and interests. But they rarely have the economic power to do so." (Peppiatt, 2001). It may require building trust around cash: Save UK observed that "there was a general lack of trust by PSNP participants in the ability of cash to meet their needs" after they saw their purchasing power decrease by more than 50% between January and June 2008 (SCUK, 2008, 36). Alternatively, food may be a better option, if this confidence will enable them to take risks and opportunities to improve their livelihoods.

Implementation and resource issues

- **Efficiency in distribution:** Cash should be more efficient to distribute than bulky in-kind transfers, if the administrative capacity exists to do so. For a temporary program with a well established in kind transfer distribution system, this may not be true.. This might be appropriate in a short term, emergency situation, but is not a justified argument for planning longer-term safety nets. Vouchers require more planning: registering shop owners, establishing seed fairs and agreements with traders. This can bring additional administration costs for some stakeholders such as shop owners, although it may also bring additional custom.
- **Discrimination, political manipulation, fraud and diversion.** Vouchers, cash and food transfers have different corruption risks which require different preventive mechanisms. With voucher schemes, care must be taken that the registration process for businesses to accept vouchers is fair to maintain competition.
- It has not been proved that cash is more prone to adverse effects and moral hazard, because it is usually believed to be more desirable, compared with other types of transfer. Adverse effects became problematic after the Tsunami where there were cases of families wrecking their houses entirely in order to benefit from full compensation for destroyed houses. In such circumstances where there is a need to rebuild or replenish substantial assets, in kind assistance rather than large

amounts of cash, may limit adverse effects. But such problems have only been reported anecdotally after many disasters.

- The ‘fungibility’ of cash means it is often believed to be more susceptible to corruption by administrators and distributors – although this problem is by no means avoided with in kind transfers or vouchers which are also susceptible to corruption and diversion in the supply chain. There is no evidence that there have been more cases of large scale corruption with cash compared with other types of transfer (World Bank, 2007). The opportunities for fraud and corruption with cash transfers equally hold with food transfers (Peppiatt, 2001). It can be transported more discreetly than bulky food transfers and the distribution of cash is more transparent than vouchers, which when exchanged can be diluted with lesser value goods. The Malawi case showed that diverted food transfers are not necessarily detrimental, as it ended up in the local markets and helped stimulate the markets.
- **Standards, regulations and the environment.** Two requirements that cash transfers should meet to ensure that the environment is not negatively impacted for safeguarding the local area against future natural disasters, are (i) the transfer should not pose an additional risk to the environment. E.g. Improving shelters by providing wood in-kind means it can be sourced from environmentally sustainable sources; and (ii) the provision of a particular transfer should not lower the standards of safety or quality. For example, earthquake-proof building standards can be enforced if the agency provides the materials and sub-contracts the work (adapted from Adams, 2005).
- **Cost effectiveness, donor and/or government preferences.** Harvey (2007) warns that surpluses in donor countries can influence the choice of transfer, rather than the needs and demands of recipients. A recent WFP market study to look at ways to re-energize the trading sector in Aceh, did not even consider market-based alternatives and hence the provision of food continued for a further year, despite the strength of local markets. (Adams, 2005). More sympathetically, it is donors/government financiers of transfers who often have to foot the cost of deliveries. In Ethiopia, food prices had increased so much that, in order to maintain coverage, it was cheaper to provide a full food basket, than the cash equivalent.²⁷ For donors, deciding the type of transfer is a more basic choice about minimizing costs. For this reason, it is even more important to keep in touch with beneficiaries’ preferences, which can easily become sidelined.

²⁷ The cost of providing food to PSNP participants increased 34% between 2002 and late 2008. The cost of providing sufficient cash to equal the food transfers had increased 298%. Save the Children (2008). Note that prices were not being compared across the same woredas regarding cash delivery costs.

5.2.2 *Public works/workfare and other conditional transfers*

The primary purpose of public works schemes is to provide short-term employment opportunities in circumstances where there are few.

- ***Ex ante* public works programs can help prevent the impacts of a natural disaster through building skills and community assets.** Ethiopia's PSNP, employs around six million people in workfare activities predominantly in environmental rehabilitation, reversing the severe land degradation, which renders Ethiopia more vulnerable during the heavy rainfall season and the onset of drought. In Malawi, MASAF introduced a public works component as a risk reduction strategy in reaction to the 2004/5 drought. In one area, Bua-Dwangwa, the local authority also provided training in crop and irrigation management, savings and investments, cooperatives and group dynamics. This led to local savings and investment groups run by the farmers and the creation of cooperatives, which are now producing commercial crops.
- ***Ex post* workfare can provide unskilled manual employment for affected households that have lost access to labor opportunities, in the longer term.** India and Bangladesh have a long history of public workfare and operate continuing cash and/or food-for-work programs that can respond to disasters. These countries have a number of safety net mechanisms prepared in the event of a disaster. Bangladesh' Vulnerable Group Development, Vulnerable Group Feeding, Food-for-Work, Test Relief and Gratuitous Relief are well-established programs that can be expanded and contracted as required (See Heltberg 2007; Heltberg and Lund 2009).
- ***Ex post* public works may be particularly useful in a post-disaster clearing-up process** to help restore infrastructure and repair/rebuild houses (as after the Tsunami) and can be an interim measure to provide employment to those that had lost their livelihoods, such as fishing, until these are restored.
- **Public works must not distract from other livelihood opportunities.** Workfare may be alright in the immediate aftermath, if there are few labor opportunities but can be inappropriate in the post-relief context, when demands on labor are often high. The focus must remain on the value of the public works for the community and participants.
- ***Vulnerable groups must continue to receive direct support.*** Attention must be paid to those without labor to participate in public works (the elderly, the disabled, the sick and pregnant/nursing women and children) and labor-poor households to ensure they receive unconditional or other support. In the PSNP, this is estimated to be 20 percent of participants. Even if these groups cannot undertake labor-intensive public works, program designers can still think creatively about other community activities they can participate in, such as running a crèche or assisting with distributions.

Conditional transfers that are tied to health and education projects require substantial set up time and investment in these services, and so are more applicable to long term development plans rather than the short-to-long term time horizon covered here. They would most likely be used coincidentally for a natural disaster response, if such programs are already in place. There is evidence showing that beneficiaries of conditional cash transfer programs in Central America have been able to protect their child human capital from being used as a risk coping strategy after a shock, as opposed to a large number of households not covered by the CCT who responded taking children out of school (de Janvry et al. 2006a and 2006b). In Pakistan, cash was provided on the condition that IDPs returned to their villages and could be used as a short to medium-term measure.

Other programs such as fee waivers and subsidies could also be considered. Fee waivers could be used to encourage uptake of health and sustain school attendance, or temporary suspension of taxes, for example on livestock in pastoral areas – an alternative which is infrequently considered. Subsidies can be easy to implement, but are vulnerable to political manipulation and can suffer from targeting problems – both inclusion, and exclusion errors.

5.3 Especially vulnerable groups and the community

Protecting and rebuilding livelihoods requires special attention to the most vulnerable groups at all levels of design, implementation, appeals and monitoring. These groups include the disabled, sick, elderly, orphans and other vulnerable children and women headed households. Particularly after a severe shock in particular, it may include psychologically traumatized people.

Community work alternatives and direct support. In the case of workfare, especially vulnerable groups need to be provided with alternatives – or unconditional transfers (direct support). At worst, protecting vulnerable groups – such as children from working - can often lead to ‘banning’ them without seeking more innovative alternatives (Bailey, 2008) and may be essential. Yet direct transfers should not necessarily be the default option, as the elderly and disabled may be able to contribute to the community in numerous ways, (such as childcare, or possibly overseeing transfers) in ways that can increase their social capital in the community.

Rebalancing social relations and empowerment. Post-shock safety nets and associated livelihood support can be an opportunity to not only “reestablish livelihoods, but also renegotiate them.” Women can be encouraged to have a stronger voice in the community, to be involved in village committees, to register land and assets jointly in the names of both husband and wife (Oxfam, 2008).

Community ownership. One of the principal recommendations of the Tsunami Evaluation Coalition was that the affected communities should be given ownership over their aid to direct their own relief and recover strategies (Houghton, 2007). Integrating the community into the program requires not just consultations, but involvement throughout the process itself. This builds a program that is relevant for the community, it builds local capacity, as well as a stronger, community owned and more sustainable program.

5.4 Targeting

The importance of targeting is to maximize the benefits for those in need of support and to minimize wastage and program costs. Achieving perfect targeting has to be offset by the costs of carrying out extensive targeting exercises. Despite its importance, targeting remains a highly problematic aspect of implementing a safety net. The fine line between different levels of poverty and vulnerability make it a difficult and moral issue, in the face of limited resources.

A World Bank study concluded in a study of 122 targeted programs in 48 countries around the world, that the best targeted program was Argentina's Trabajar workfare program, which was able to transfer 80 percent of program benefits to the poorest quintile, or four times the share they would have received in a random allocation (Coady, Grosh, and Hoddinott (2004). Among our case studies, the Maldives was successful at targeting safety nets after the Tsunami. Over 75% of the affected population received grants. It was also geographically accurate with the worst-hit islands receiving more in-kind and financial aid. But little information was available about their targeting strategy and how and what they got right.

As with targeting in non-crisis times, there are three issues to resolve: (i) who to target; (ii) how to target and (iii) what to target. This section begins with a discussion on how to identify the target group, how to include particularly vulnerable groups and the need for frequent re-targeting exercises. It continues with an exploration of how to target for disaster situations including targeting errors and which targeting mechanisms should be employed for which types of situation. It concludes with an overview of a number of additional issues to consider.

5.4.1 Identifying the target group

This will largely depend upon the program objective and the needs assessment following the disaster: Is it a short-term intervention to meet basic needs, or longer-term to rehabilitate livelihoods? The target group can either be all those affected by the crisis or the poorest and those left most destitute, so

they can range from whole communities, to households within affected communities, or specific population groups (such as displaced persons, the elderly, etc.).

There are three common criteria for eligibility in post disaster situations: (i) Death or injury of a household member (ii) Loss of assets, house and work tools (iii) vulnerability and poverty. The advantages and disadvantages of each are compared in Table 6 below.

Table 6. Selecting the targeting criteria: advantages and disadvantages

Compensation group	Advantages	Disadvantages
Death/injury compensation	Government life insurance Simple Quick	Can encourage inflated mortality/injury figures if registration and administrative systems are weak
Loss of assets/property	Relief phase Small-medium sized disaster, where all will be helped, regardless of wealth status	Those in the rental market or without property may be excluded; numbers may be inflated if administrative systems are weak
Poverty	Useful in large disasters; Good for the medium term where aim is to prevent those at risk of becoming chronically poor	Costly & time-consuming; Requires heavy use of management, which may be time-scarce; Must be transparent, especially to avoid conflict; given limited resources, exclusion errors may be high

Source: Heltberg, 2007

Drawing lessons from the examples laid out in Section 0 above,

- Ideally, there should be **access to a variety of different safety nets** that can meet different affected groups and for different lengths of time. This will be more viable in situations with pre-existing safety nets.
- Also, **programs can be multi-tiered, in order to target different wealth groups**, as with Oxfam’s experience in Sri Lanka after the Tsunami (Section 3.4).
- Beyond the core target, which **additional groups** can the safety net assist? For example, orphans and grandchildren can benefit from transfers to the elderly, the entire community can benefit from community assets built from public works, specific vulnerable households can profit from community work schemes that rebuild private assets.
- An effective emergency/rapid needs assessment (ENA/RNA). **Rapid assessment of the situation is an imperative, followed by continuous and rigorous tracking of the situation.** This will help

advance response times to hazards. The monitoring mechanism of Ethiopia's PSNP has been improved to reflect this.

- **Visibility of and coverage for the most vulnerable:** Following a natural disaster, the most frequently targeted vulnerable groups are female-headed households, the elderly and orphans and other vulnerable children. Several other groups that require particular attention are the physically disabled, psychological trauma sufferers - an increasing concern for the longer-term rehabilitation process and which some donors are now addressing with post-trauma mental health programs,²⁸ and hosting communities, when targeting migrants.²⁹ Planned safety nets need to be tailored to the specific needs of each of these groups.
- **Universal targeting may be appropriate in the immediate to short-term**, but given limited resources, a more finely targeted approach may be necessary a) in the medium-long term and b) if the disaster is spread across a large geographic area.

5.4.2 How to target: Timing and re-targeting

Targeting processes will alter according to whether the situation is a slow-onset disaster (such as Malawi in 2002-2005), or an unexpected event, such as the Pakistan earthquake, 2005. Following a rapid-onset event targeting is likely to be particularly difficult in the initial stages, due to the loss of trained human capacity, damaged infrastructure, and destroyed records and data. Furthermore, targeting is an ongoing process and needs to adapt as post-emergency recovery progresses from the short to longer term, as needs and target groups change. Effective targeting relies on two key aspects: (i) Effective EWS; and (ii) having emergency plans in place and institutions on standby in order to implement targeting rapidly when required (this can also help swiftly implement the evaluation stage following a disaster).

In Pakistan, Relief Committees were established to tour villages and adjudicate compensation claims. While they were supposed to visit every household, in some cases, village meetings were convened and assessments were conducted based on oral evidence. Save the Children estimates that the preparation phase for community-based targeting alone can take up to fourteen weeks. This may be possible if scaling up a safety net and targeting process that is already in place, but infeasible if trying to implement a safety net rapidly from scratch. Instead, it could be phased in over time, or planned in time for subsequent emergencies.

²⁸ See for example, UNICEF's response to the Peru earthquake in 2007. <http://www.un.org/works/sub3.asp?lang=en&id=32>

²⁹ In Colombia WFP targeted IDPs that had migrated as a result of the troubles. Yet resident hosting households were frequently as poorly off as those targeted and it had to alter its target groups in order to ensure coverage of the poorest.

Drawing on the case studies, some guidelines for executing the targeting exercise are as follows:

- Re-targeting should take place relatively early on and on a **recurring** basis, particularly if the targeting mechanism has been the same one used during the relief period.
- Targeting criteria should be **flexible** to change, particularly as the composition of vulnerable households and ownership of assets change
- Targeting should **improve over time**, with a reduction in inclusion and exclusion errors.
- **Data collection** for effective targeting is paramount. Some sources of information are listed below, in Box 2.

Box 2. Sources for data and information for targeting

Data availability and assessments for targeting

Pre-hazard data and information:

- Household questionnaires
- Population census, local administrative data and births/marriages/deaths registers
- Food security monitoring systems: ongoing monitoring of food security situations

Post-disaster

- ENA/RNA: These estimate numbers of affected people and the level and type of need
- Vulnerability analysis and mapping (VAM): a WFP framework for targeting comprising Geographic Information Systems (GIS), food security and vulnerability analyses and food-security monitoring systems
- GIS - using before and after data to map affected areas through satellite technology
- Informal networks, such as church networks and other social networks, can be useful for intra-community targeting, especially triangulated to verify other information.

5.4.3 Targeting mechanisms

Deciding the targeting method will be a balance between cost, efficiency and effectiveness. In a disaster situation, the simplest targeting mechanisms are those which do not require a verification process (see Coady, Grosh and Hoddinott 2004 for a detailed treatment of different targeting methods). These are

- (i) **self-targeting mechanisms** such as subsidizing goods that are mostly consumed by the poor and setting wage rates under the local daily wage on public works schemes; and
- (ii) **universal coverage** of the affected population, although this will not specifically reach the poorest (and may even exclude them if wealthier groups dominate access to the resources). When this is directed at specific areas, it is more commonly referred to as **geographic targeting**.

The advantages and disadvantages of various targeting mechanisms as they apply to hazard situations are summarized in Table 7.

Table 7. Targeting mechanisms in emergencies: advantages and disadvantages

Targeting Mechanism	Advantages	Disadvantages
Self-targeting	<ul style="list-style-type: none"> ▪ costs should be minimal compared with other targeting methods ▪ it is redistributive ▪ if tied to a public works program, it can also achieve other objectives, e.g. clearing up debris, rehabilitate small infrastructure, etc. 	<ul style="list-style-type: none"> ▪ Yet there is a risk of over-demand, where chronic poverty is widespread and employment opportunities are very scarce. ▪ To counteract this, payments are therefore extremely low, maybe not enough to meet objectives or only meet basic needs (Dercon, 2004) ▪ Must be carefully designed to ensure the activities fit the target group (e.g. public works may achieve additional objectives but are not suitable for all target groups).
<p>Hazard situation: Longer –term or recurring emergencies – although recurrent emergencies also give opportunities for refining eligibility criteria and beneficiary lists necessary for community and household targeting (WFP, 2006)</p>		
Universal/geographic targeting	<ul style="list-style-type: none"> ▪ It should be the least costly (zero cost) and most time efficient compared with other targeting processes ▪ It avoids exclusion errors (as long as the scheme is accessible by those in need) ▪ It is equitable – and it may be necessary to give support to all income levels in the short term. 	<ul style="list-style-type: none"> ▪ By definition inclusion errors are likely to be higher ▪ Care must be taken to ensure that it is poverty-focused and is not directed for political gain at economic elites, (such as gasoline subsidies).
<p>Hazard situation: Widespread emergencies, when all (or within a certain geographic area) need assistance to recover, regardless of income quintile. Depending upon the population size, this is usually for short term use, and small transfer amounts. Situations where assistance needs to be given rapidly; where it is not possible to access data/take the time to do so.</p>		
Community and household targeting	<ul style="list-style-type: none"> ▪ By using local knowledge to target participants, this can overcome a lack of demographic and income data which may not be accessible after a disaster ▪ Giving the community responsibility for targeting can be empowering and foster social capital. ▪ Typically community targeting is carried out in the open, 	<ul style="list-style-type: none"> ▪ It demands a high level of community preparation and training. (Save the Children estimate that this can take over three months). ▪ It can contribute to social disharmony if local hierarchies are mis-used to manipulate and intimidate community members. ▪ May not be feasible if there has been social disintegration,

	<p>which capitalizes on social mores to ensure transparency and prevent fraudulent claims</p> <ul style="list-style-type: none"> ▪ It may also save time for program administrators on conducting lengthy house-to-house visits. 	<p>such as due to migration and displacement.</p> <ul style="list-style-type: none"> ▪ It requires an ongoing commitment: to implement in post-disaster situations, training and awareness-building needs to continue during ‘normal’ periods.
<p>Hazard situation: Situations where there is good knowledge of households/availability of household data. Safety nets that are planned, to protect against disaster (ex ante) or are for longer term recovery (ex ante). typically more difficult in natural disasters and non-conflict emergencies (unless they are operational prior to the emergency). Such targeting takes time and requires training of communities and a good understanding of how to conduct the targeting. It may be easier than door-to-door household assessments, however.</p>		
<p>Means testing and proxy means testing</p>	<ul style="list-style-type: none"> ▪ Means-testing is precise. ▪ More subjective, so useful when this requires an external decision-maker. ▪ Proxy means testing requires less information than means testing and is usually based on observable characteristics, such as levels animal stocks, or the quality of or contents of a home – which may be appropriate in low income households or where income is difficult to measure. 	<ul style="list-style-type: none"> ▪ Means testing requires a high level of administrative capacity, good data collection and access to documented information, which may be difficult after a sudden crisis. ▪ Means testing relies on assessing levels of income (amongst other measurements), and therefore is more difficult where there is a wide informal economy or low levels of recording income and other welfare information. ▪ Proxy means testing requires well-designed indicators.
<p>Hazard situation: Typically used in more developed countries, where there is access to reliable records, even after a shock. Assuming data, this can be useful in situations where the community lack knowledge about each other, where the community is fractured or where community targeting may lead to conflict.</p>		

However, these mechanisms may also be combined. Horn Relief developed ‘Inclusive Community-based Targeting (ICBT) for their work in northern Somalia. A Village Relief Committee was publicly elected to compile the preliminary list of participants, based on locally identified indicators of vulnerability (assets, household size, gender of household head, clan membership, etc.). Staff verified this through discussions with community organizations and religious leaders. Lists were read out in public, so that the community could participate in the targeting process, and opinions to this were then checked discreetly, because clans would not challenge each other in public.

5.4.4 Targeting errors

There is no accepted level of exclusion and inclusion errors (*Grosh et al, 2008*), although during a disaster, higher inclusion errors are likely to be tolerated. Some of this is unavoidable: there is

imperfect information between collectors of information and potential participants and dilution of transfers through food-sharing food is inevitable. However, it can be problematic for example, if there are nutritional objectives for a specific target group. Exclusion errors are unavoidable where safety nets are not fully funded, because there is a limit on the number of people that can be absorbed within the program (Grosh et al, 2008).

To illustrate the problem, in Sri Lanka, following the Tsunami, 91 per cent of all households in the affected area were receiving grants, even though only 74 percent of households were affected. This led to more stringent application of the targeting criteria: only 'strongly vulnerable' households (those that had lost an income-earning household member or who had suffered partial or full housing damage) were eligible for subsequent grant tranches - despite that the broader 'weak' category included those that had lost a household member, lost business assets, lost their livelihood, or suffered a disability. It was acknowledged that disbanding the program after the fourth payment was problematic because of the absence of other opportunities, yet to continue payments raised the concern of creating dependency, acting as a disincentive to seeking employment and causing inflationary pressures over time (World Bank, 2005).

Three options to help *alleviate* inclusion errors are:

- (i) Factoring this in to calculations of need and increasing transfers accordingly;
- (ii) Minimize possible leakage in the program design. For example targeting children through school-feeding, mothers and babies at health centers and the sick/injured in hospitals;
- (iii) Thorough monitoring, frequent re-targeting and an effective, trusted appeals system.

Some inclusion and exclusion errors may have to be tolerated (for the better good of the community). This may be particularly true in emergency situations. In Darfur, WFP observed that rural residents were more vulnerable to food insecurity than the incoming IDPs who were receiving assistance. This put strain on the community. The solution was to assist all the community where IDPs constituted over fifty percent of the population. Although some non-needy received assistance, this controlled the tensions in the communities (WFP, 2006).

5.4.5 *Designing the targeting process*

Important issues that the Tsunami response in Sri Lanka revealed about designing targeting are:

- the need for **ongoing targeting assessments** in order to correct errors
- the **limited endurance of donors to withstand high targeting errors** and which could compromise their own project targets; and most importantly,

- there is an essential need to **focus on restoring livelihoods** (i.e. looking towards longer-term rehabilitation), but a relative lack of conviction and expertise in knowing how to do so.

Other issues, applicable to hazard situations raised from the case studies, include:

- **Capitalize on pre-existing safety net targeting and appeals systems.** This may require additional capacity needs to cope with the increased numbers. Clearly, this takes time and preparation and should be in place before the emergency, or as part of the emergency plan.
- **Match targeting exercises with the target group.** Deciding how to carry out the targeting, should be based upon where the recipients will be most easily identified. For example, in order to provide injury compensation, it may be practical to conduct targeting in hospitals and clinics. It is also necessary to have an additional mechanism to capture outliers, who will slip through the system, for example qualifying people who did not make it to health facilities. In Pakistan, injury compensation assessments were carried out in medical camps and a secondary targeting phase was conducted by local community Relief Committees.
- **Strengthen the verification process:** Some eligibility criteria may be easier to mis-report, or be prone to moral hazard. For example from the case studies, potential candidates can be tempted to damage their houses or underestimate income. Suitable targeting strategies to validate claims can include: to publicly display lists of participants and to conduct the targeting process openly in the community. As mentioned, an appeals process for unsuccessful applicants is critical to counterbalance inaccuracies.
- **Assess the capacity of targeting institutions:** Targeting can place immense pressure on local authorities, particularly departments inexperienced with emergency situations. Local targeting may cause political tensions. This requires training: again, emphasizing the need for well-planned disaster preparations. High inclusion errors may be more acceptable in the short-term, with more stringent attention to the targeting criteria in the medium to long term. In Niger, explicit and transparent criteria for determining a food crisis and identifying vulnerable regions are not available. This was particularly problematic in 2005 when the initial list of vulnerable villages produced in May 2005 did not coincide with qualitative and quantitative evidence observed by international and non-governmental organizations. This prompted considerable friction between the Government and the international community. Although numerous institutions attempted to update this information by conducting additional food security assessments, to-date, a list identifying the most severely affected regions during the 2005 food crisis is still not available.
- **Involve the community, but manage expectations.** Implementers should beware that the sound principles of community participation do not always translate into improved outcomes (Kennedy et al, 2007). It is essential to work with communities and manage their expectations for what, how

much and for whom the safety net will deliver. Unless handled carefully, community consultations can give rise to unrealistic hopes. Mis-managed community consultations can lead to unrealistic ‘wish lists’, as was observed in community consultations following the Tsunami. Targeting mechanisms and criteria must be agreed amongst the affected population (The Sphere Project, 2004) (which also should likely include non-target groups). To avoid confusion, it is of utmost importance that targeting criteria are well-defined and disseminated widely (The Sphere Project, 2004).

5.4.6 The costs of targeting

Even in the post-relief phase, there is likely to be little time for targeting and the more accurate the targeting, then the more costly and time-consuming the process can be. Typically it is only the administrative costs of targeting that are calculated for, while there are in fact a number of different costs to factor in, all of which will reduce the cost-benefit ratio of a particular targeting type. There are the administrative costs of collecting information about participants. Individuals incur private costs of applying to a program: these can include traveling to registration sites, providing photos, collecting proof of personal information such as birth certificates. Incentive costs may be negative for example discouraging earning other sources of income, to fall within the target group, or positive such as encouraging school enrollment. Social costs may be the result of stigma associated with participating in a program. Finally, political costs may result from concentrating too much spending on targeting (Grosh et al, 2008). Some of these apply to safety nets more generally, not just those implemented in response to natural hazards, such as the political costs. In addition to these, WFP identifies two further types: recurrent and implicit costs, summarized in Table 8 (WFP, 2006, 19).

Table 8. Planning the costs of targeting (drawn from WFP, 2006)

Type of cost	Examples
Initial (administrative) costs	Baseline Assessments [WFP rapid ENA for one million recipients, after Pakistan earthquake in 2005 cost \$22,000. An ENA for 400,000 participants in Niger in 2005 cost \$58,000. WFP estimate that VAM are typically \$50,000- \$100,000] Fieldwork to develop criteria Staff/partners/ community training Information campaigns Establishing registration and distribution systems
Recurring costs	Updating registration systems; Monitoring of distribution/post-distribution; Evaluations/ reassessments; In countries that experience recurrent crises: Maintaining targeting capacity

	between emergencies Monitoring system for emergencies; Implementing monitoring and field evaluations for each emergency Retraining of staff
Implicit costs	Costs of risks inherent to access, negotiations, staff security. In emergency situations, staff are more likely to be exposed to security risks
Incentive costs	Positive: Encouraging school enrollment Negative: Discouraging income-seeking
Political costs	Consequences of spending too much on targeting.
Beneficiary Opportunity ('private' or 'transaction') costs	Costs for recipients of assistance Participation in targeting meetings/ household surveys, Collecting information eg birth certificates; Other registration costs, e.g. providing a photo

To conclude, targeting is always difficult, but particularly so when there is an imperative to act quickly and this makes it even more important not to overlook the balance between non-partisanship, local knowledge and pragmatism. The very concept of targeting risks being seen as a top-down exercise, and the agency of affected communities must be explicitly recognized in program design. A checklist for targeting is in Annex VII.

5.5 Size, frequency of the transfer and delivery³⁰

Setting the appropriate size and frequency of a transfer remains a grey area. There is considerable variation in the size of transfers offered following different natural disasters but no standard proportion of assistance, and little literature calibrating the impacts of different levels of transfer. The lack of knowledge about the ideal (proportional) level of transfer, leaves it largely up to donors' whims. Smaller disasters attract less money, which is yet another argument why it is so important that countries have planned access to financing. Measurable objectives and monitoring and evaluation plans will have to be revised if the required financing is not forthcoming. Establishing the quantity, frequency and duration of transfers are decisions taken simultaneously, based on the following factors:

³⁰ For more details, see Grosh et al, (2008) chapter 5.

Endogenous factors:

- Type of natural disaster and need
- Program objectives
- Recipient preferences

Exogenous factors

- Availability of foreign assistance
- Implementation concerns (e.g. misuse)
- Ability to determine eligibility

There are no reports in the case studies as to what is preferable; and the literature and practice is sometimes at odds here. The most recent research used here, comes from studies with focus groups for a disaster risk reduction cash transfer in Niger (see Bailey, 2008). However, several principles and observations can help guide decision-making on the most favorable level of transfers to provide. These are suggested guardedly, as **all decisions must be specific to the country and circumstances**. Refer to ANNEX IV for a summary of size, regularity and coverage of transfers for natural disasters.

In general

- **Maintain a balance between incentives to enter and exit** from the program (SCUK, 2008). There is a delicate balance between providing grants large enough for people to draw maximum benefit while providing sufficient continuity in transfers to make a sustained impact, and minimizing adverse incentives and double dipping.
- **Match transfers to the program objective.** This will initially determine the approximate duration and size of the program. Consumption smoothing objectives and asset rebuilding may need different size transfers. Slow onset disasters where the aim is to smooth consumption and halt asset loss, rather than repair or replace assets, typically seem to provide lower transfers.
- **Consider market prices** (including fluctuation).
- **Be aware of households' capacity/ability to spend.** Whether recipients have the capacity to use transfers in a way that decreases their vulnerability may affect the size and frequency of a transfer (Bailey, 2008).
- **Consider other complimentary activities**, such as training and other 'linking' activities that can also promote the program objectives. If the object is to provide larger transfers for investment purposes, it may be useful to provide additional support to help people manage their finances, save, open bank accounts or lines of credit with local stores.
- **Be cognizant of seasonal as well as post-disaster variation.** Setting the market wage can be complex as it can vary throughout the year and may fluctuate during the immediate post-disaster period and the post-emergency aftermath. Similarly, attention must be given as to whether there is sufficient local employment during the aftermath/recovery/longer term rehabilitation periods. Transfers must not crowd out market income-earning opportunities.

5.5.1 Quantity

The size of transfer during an emergency is indicative of prioritization, need and external resources rather than a country's wealth. For example, Pakistan paid 7-48% of the average income per capita in cash transfers; Sri Lanka 3% and the Maldives 1.3-4.5% and from the case studies, it is difficult to find a concrete reason behind these decisions. The table in ANNEX IV shows the variety in size of transfers provided across different programs. While the literature is cautious about providing (cash) transfers that are too large, the lack of evaluation of their impacts on livelihood, makes it difficult to be certain whether transfers are sufficient in many of these circumstances.

If the size of transfers is adequate, safety nets can yield profoundly positive results. In the Maldives, rations were assessed to be adequate. Beneficiary assessments found that around eighty percent of highly affected households said that provisions of rice, sugar and water were enough to meet needs. Six months after the tsunami, employment had recovered and household income was already higher than before the disaster. Rates of food insecurity returned to pre-tsunami levels within a year. In a second example, monthly payments of \$60 for six months were paid to households affected by the Bam earthquake. This was provided rapidly through previously existing channels: the local Welfare Organization, which was able to register vulnerable groups: female-headed households, orphans, the elderly and the disabled immediately after the earthquake. The renaissance in small-scale trade and a growth in the number of shops and stalls is evidence of the success of the program.

However, *this can also be an incentive for double dipping and adverse effects*, so some caution needs to be exercised in providing large or lump-sum payments. In Somalia in 2003, the one-time cash grant of \$50 to vulnerable households suffering from acute food insecurity was less effective. The post-distribution survey showed no evidence of misappropriation or of cash going to support the war economy, but the one-off distribution provided only short-lived relief and soon after, levels of debt and distress were rising again. Lump-sum cash payments can also create problems of adverse incentives. After the Tsunami, there were reports of people destroying their houses in order to benefit from the full cash housing compensation. The level of transfer can also lead to double dipping. In Afghanistan, families were paid \$100 to encourage IDPs to return home. The program was susceptible to double-dipping and there were numerous cases of returnees returning again via a different route. However, the \$10 payments per person for a similar project after the Bam earthquake, avoided this problem.

- **Consider all the households' expenses, including debt repayments and business costs.** The general rule in the literature is to provide just under enough to achieve goals but avoid dependency. Yet, the concern to avoid creating dependency seems to result in too low payments in practice: Household expenses are often underestimated and the cost of re-establishing micro-enterprises, or the levels of household debts to repay and often not even considered. Lumpy grants also need to be sufficient: following the Tsunami the amount given was not enough to buy new boats so consequently grants were spent in other ways. "These underestimates compromised effective recovery and many households were only able to regain their livelihoods (or re-launch their enterprise) after a succession of grants from *several* agencies." (Adams, 2005. Emphasis added).
- **Ensure objectives (and the subsequent size of transfer) are in line with household spending priorities.**
- With cash grants, the key question to setting an initial value of transfer is to **decide whether the cash transfers are consumption grants or investment grants.** This means considering whether the purchases households will make with the grants will reduce vulnerability in a way that can protect against future shocks and disasters. In Niger, **focus groups requested cash transfers should be 20-40% of the annual average income** of the target group (Bailey, 2008).
- **Food rations tend to meet the standard food basket** for emergency assistance, of 2100kcal/day.
- **Cash-for-work wages tend to be set just below the market wage rate,** so as not to upset the local labor market by crowding out local opportunities and upset. However, the variation in households' income means that there are often households willing to work for any given wage (Barrett and Clay, 2001).
- **Be cognizant of the problems of fluctuating size of transfers.** The disparity between transfers paid in 'normal' years and the higher amounts in a post-disaster situation may create subsequent problems both in terms of encouraging adverse incentives, inequity and social discord.

5.5.2 *Frequency, timing and duration*

"The principles of *stability, predictability, and timing* of an intervention may be as critical to social protection intervention effectiveness as the resource transfer itself" (Maxwell et al, 2008, 5). Predictable, stable transfers are essential to help recipients assess their willingness to take risks, which will help reduce their vulnerability to future or impacts of current shocks.

Yet there seems to be little or no consensus as to the ideal timing and frequency of transfers, which reflects the heterogeneity of households' preferences. Deciding the timing and the frequency can only partially influence how households are spend their transfers.

- **Recipient preferences tend towards larger, infrequent transfers**, rather than smaller, regular transfers. This enables them to make investment choices. However, Bailey suggests that the returns to investment-promoting lump sum transfers are likely to be lower with the ultra-poor as they will have a lower ability to manage larger sums of money (Bailey, 2008).
- To meet **basic needs objectives and immediate needs, transfers tend to be frequent and small** (to meet minimum food consumption) – whether food or cash transfers. In the short to long term, they may support consumption levels, but they must be for a sufficient duration that they can build resilience. Bailey observes that short term cash transfers have limited impact on reducing vulnerability to shocks and disasters (Bailey, 2008).
- On the other hand, **for livelihood recovery, or compensation and insurance mechanisms, grants in the immediate aftermath of natural disaster are more likely to be a one-off payment**
- **Payments before/during the hungry season are most likely to be used for consumption and to arrest the need to accumulate debt, larger payments can be more easily used for purchasing livestock when prices are low. Payments after the harvest are more likely to be used for repaying debts.** There was no agreement among focus groups in Niger as to the ideal time for paying transfers.
- **One-time payments are for ‘one-off’ or start-up aims** for example to encourage repatriation, replace lost assets and meet emergency needs. Materials for re-building houses are usually distributed in one go. Disadvantages of one-off payments are: (i) relief provided from lump sum transfers may only be short-lived relief (i.e., not appropriate for overcoming acute food insecurity); (ii) as one-off payments tend to be larger, it can create adverse incentives for recipients to seek full compensation; (iii) lump sum payments can encourage double-dipping (multiple claims).
- **Lumpy payments are for larger investments that take place over time or payments that need monitoring** for example, providing cash to rebuild homes in installments.
- For **safety nets ex ante, transfers are likely to be regular** in order to support and protect livelihoods in the event of a natural hazard.
- Evidence from Niger suggests that **one to two installments can help spread risk, whereas small installments discourages investment.**
- **Assess the impact on livelihoods.** Low-income groups with few employment opportunities may require a longer-term commitment in order to help people rebuild their livelihoods. For the most vulnerable and most in need, cash grants should be extended to the medium term, while less vulnerable households are phased out of the program.
- Inevitably, in the short run, **delivery frequency also depends on institutional capability** to distribute transfers. In Ethiopia, it was decided that the government administration could

realistically make deliveries every two months. It requires an accurate assessment of how long it will take to transfer money, the signing off period and to anticipate where the obstructions might be. Inadvertently, providing larger sums less frequently, affected how recipients spent their money.

Situation/Objective	Size & Frequency of cash transfer	Issues
Consumption smoothing (pre-shock)	Small, regular	<ul style="list-style-type: none"> ▪ Supports consumption but may not help build resilience to future shocks.
Emergency assistance (post shock)	Regular	<ul style="list-style-type: none"> ▪ Can meet immediate needs, but consider needs in the medium to long term and how to transition accordingly.
Asset recovery (post-shock, immediate)	Large, one-off/two-tranche payment	<ul style="list-style-type: none"> ▪ Negative incentives to access cash; ▪ There must be a ready supply of assets/materials locally available; ▪ Households may have other needs, other than the program objectives; ▪ Linkages are important – maybe skills training, etc. to encourage diversification in small businesses.
Building resilience to shocks / Livelihood recovery (longer-term, post shock)	Larger, regular	<ul style="list-style-type: none"> ▪ Long term cost; Negative incentives, ▪ Recipients must have the capacity to make use of large-sum payments ▪ Timing will effect what the transfer is spent on: eg. pre-harvest, some prices of some investment assets (e.g. livestock may be low); post-harvest and debts can be re-paid; ▪ Other programs will need to support the effectiveness of the cash transfer.

5.5.3 *Where and how to deliver payments*

There is a plethora of ways to deliver transfers and where to establish delivery points and the decision will depend up on which system is already established and pragmatism. There are current examples of cash transfers being delivered on anything from mules to helicopters, while delivery points include banks, post offices, local administrative offices, rural shops and in Kenya, even mobile phones. Areas with a developed banking system have used banks to distribute cash. This minimizes transaction costs, should mean a more timely delivery of transfers and helps promote savings. It will not be feasible in less developed areas. . Uppermost too, should be the **opportunity costs that this incurs for recipients** and the **costs to the administration** – and there may be a trade-off in this. As many of the issues are universal for all safety nets, this section draws on experiences in both crisis and non-crisis situations.

Deciding upon **where to deliver transfers involves a trade-off at some level between convenience for the recipients and costs for the implementers.** While corruption was in general an immense problem in Indonesia, providing cash a transfer through post offices was relatively secure. In India and Lesotho where infrastructure is relatively established, pensions are delivered through post offices and each pensioner has a post office account. The Lesotho scheme is flexible, however, and in remote areas without post offices, pensions were issued at local shops by post-office officials. Even where there is an incomplete rural banking system, mobile banks can be used to ensure secure payments. Harvey (2007) reports an increasing number of successful pilot schemes. Other methods of delivering payments securely include UNHCR which used a process of iris recognition, in Afghanistan to encourage IDPs to return home. Grants provided to flood victims in Mozambique in 2000, were delivered by a private consulting firm. Recipients were issued with checks at distribution sites and commercial bank tellers were on site to cash the checks, under the protection of a local security firm and quite frequently, the army is used to guard payments, in non-conflict situations. Distribution sites offer opportunities for petty trade. For example, around pay points for Lesotho's Old Age Grant, there was lively trade and Basotho pensioners were engaged in making goods such as woven baskets, clothes and Vaseline to sell at the monthly collection days.

In envisaging the implications of selecting a particular delivery site, the following should be considered:

- **Access to other resources and services:** Payment points in market centers may be further for recipients to travel to collect their transfers, but it may give them access to more commodities, encourage the use of public services, such as health services; or an opportunity for them to sell goods.
- **Stimulating the local rural economy:** On the other hand, establishing payment sites in remote areas close to recipients' homes can support local shop-owners and help stimulate rural markets.
- **Ease and convenience:** Suitable sites are natural gathering places or convenient for distribution: these include schools, local warehouses, local administrative offices.
- Try to maintain **equity in delivery.** Recipients that spend more of their income on collecting the payment than others, retain proportionately less to meet for example, consumption needs. In Swaziland, SCUUK provided for the cost of transport to collect the payments so that it did not diminish the value of the transfer (Devereux and de Jere, 2008).
- **Preventing marginalization.** Practices such as handing transfers to men can marginalize women or reinforce social disparities. Confronting norms can make these groups even more vulnerable if improperly handled or when the implementing agent changes.

- **Distance and costs for different target groups:** The distance of payment sites from recipients' homes is more significant for certain groups. For example, if female-headed households are being targeted, it may be more appropriate for the implementers to shoulder the delivery costs and deliver closer to recipients' homes. As an example, in Lesotho, some pensioners (all over 74 years old) were walking for several hours to collect their pension, waiting times could be up to three days and some spent almost half of their pension on transport to and from payment sites. Such issues would also be particularly relevant to women with children. (see below)
- **Simplicity:** High-tech solutions for delivering transfers such as mobile ATMs with fingerprint or iris recognition, or mobile phones can speed up delivery times and overcome high transport costs, but in reality can lead to a host of problems and immense delays, as they did in Kenya. In the end, simple solutions such as a bank teller driving to villages to deliver cash in envelopes may be more effective.

Table 9. Selecting the payment site: advantages and disadvantages

	Advantages	Disadvantages
Rural payment sites	<p>Cheaper for recipients to collect – fewer transport costs</p> <p>Less time-consuming to collect</p> <p>Can stimulate very remote markets</p> <p>May be easier to save transfer (if it is cash)</p>	<p>Higher delivery costs</p> <p>May be difficult to spend cash transfers due to less choice/supply</p> <p>Prices may be higher</p>
More centralized payment sites	<p>Better access to a range of commodities</p> <p>Lower delivery costs</p> <p>Lower market prices</p> <p>Access to larger markets for recipients participating in petty-trade and small businesses</p>	<p>Higher collection costs e.g. accommodation costs, transport costs (especially for food transfers)</p> <p>More time-consuming to collect</p> <p>May dampen local village trade</p> <p>Transfer is more likely to be spent at once</p> <p>May be higher security issues</p>

5.6 Institutional management and coordination

“The implementation of disaster risk reduction.... requires political support, financial resources and engagement of all the stakeholders: line ministries, civil defense and emergency services, local governments, private sector and civil society.” (Demeter, 2007, 5).

One of the main shortcomings of both the Tsunami and Hurricane Katrina Tsunami - two events that caught authorities unawares and involved a huge influx of organizations offering assistance - was the need for proper planning prior to the disasters and effective coordination in the aftermath³¹. “Coordination, not competition or confrontation, is necessary among organizations to ensure even coverage of beneficiaries, uniformity in the packages provided and consistency in meeting local and national building codes, as well as international standards.” (Kennedy et al, 2007, 31). Good coordination is paramount, so as to avoid government departments need to know who is doing what and be prepared for how they will manage the influx of assistance.

A useful analogy is to think of “risk layers”. Each layer needs to be identified and an appropriate government role assigned to manage each one to ensure that there is no overlap or contradictions in programming. (Skees et al, 2005). Skees et al, apply this to managing agricultural risk for disasters, but it can help more broadly – both in planning programs to address different levels of risk and then organizing management of individual programs.

- It is necessary to give considerable attention to coordination and communication, **using pre-established lines of communication where possible**, so as to capitalize on existing experience and to avoid the cost of establishing new bureaucratic structures.
- **Political struggle between departments must be minimized, or at very least understood:** Political endorsement from the top is critical: the agency cannot succeed without the strong buy-in and support of government and ministries, including local governmental and non-governmental sectors and the private sector. This may be difficult if ministries have to negotiate with each other and feel their traditional areas of autonomy are being infringed upon (McMahon, 2006).
- Effective management and coordination of recovery and rehabilitation efforts will not only help avoid overlap, but also create openness and transparency in order to minimize corruption, so helping **maintain confidence in the recovery and rehabilitation process**.
- Indonesia and Sri Lanka **established specific agencies to plan, coordinate, and administer the reconstruction work**. Such agencies can provide a valuable vehicle but need to be well mandated and ‘lean’. They can act as a conduit of information for safety net implementers, providing a link to other activities, supplying data that may be useful particularly in targeting, and assisting in monitoring activities (see Box 3).
- **Stakeholder coordination** is important so as to avoid duplicating efforts. It requires working with the community, other government departments, NGOs and donors.

³¹ *Pers.comm and Houghton, 2007*

- **Focus on the community and government administration in localities** is paramount. Not only are programs obstructed because too little attention is paid to effective communication with local areas, but in a crisis, it is the community and the rural administration that are the first to respond. Moreover, the communication has to be effective in both directions.
- **‘Getting it right first time’**. Re-setting standards, amending criteria and regulations in order to adjust to available resources and materials, causes confusion and delays in providing assistance. Additionally, this undermines confidence in the operations. To minimize these disruptions, requires sufficient planning and better assessment of the scale of the problem and availability of materials.
- **Disaster management approach needs grounding in policy and legal framework** in order to demonstrate political commitment and formalize the institutional set-up. Following the Tsunami, Sri Lanka passed the Disaster Management Act (2005). This established a National Council for Disaster Management, headed by the President and Prime Minister and the Ministry for Disaster Management and Human Rights, which was responsible for developing a road map for disaster preparedness to help Sri Lanka in the future. While countries at the policy level are treating disaster more as part of the development process, there is still inadequate focus on livelihoods and encouraging community participation in disaster management activities (World Bank, 2004).
- **Rehabilitation agencies can be formally established in the legal code.** “It is important that assignments of functions and responsibilities among government agencies and other organizations are mutually accepted and formalized explicitly through disaster legislation, implementation arrangements or a national disaster management plan that carries the force of law.”³²

Box 3. The role of post-disaster rehabilitation agencies. Source: McMahan et al, 2006

McKinsey was involved in organizing the rehabilitation exercise in Indonesia and Sri Lanka after the Tsunami. They advocate the use of reconstruction agencies. To avoid becoming an additional level of bureaucracy, these agencies should focus on six core activities and their approach must combine careful planning combined with fast decision-making skills. The six identified activities are:

- Planning and policy making , including process standards and mapping;
- Reviewing, generating and approving projects;
- Building local capacity;
- Removing bottlenecks. Develop a simple process for problem-solving, such as import problems;
- Monitoring and evaluation. An information center for collecting, tracking and analyzing information;
- Disseminating information. Organizations “must liberally share” to increase efficiency and confidence.

³² Demeter, 2007, 6 referring to Mattingly, 2002, *Disaster Risk Management: experiences and models*

5.6.1 Program timeliness

The speed at which a safety net program can be launched depends upon how prepared the country is, i.e. whether they have an established safety net in place already, the accuracy in assessing the size of the problem as well as practical aspects such as capacity, banking system, size of country, extent to which infrastructure has been damaged, etc.. Save the Children (2008) and the World Bank (2007) both estimate that a new safety net takes at least four to six months to establish. Again, this section considers a few guiding principles for ensuring timeliness in delivery of transfers:

- In theory, **cash should be the quickest resource to transfer to localities and distribute** (see section 5.2.1 above. Compared with food and in-kind transfers, there are fewer hurdles to overcome, such as transportation, importing, checking at customs, storage, all of which can delay transfers and risk the food turning bad before it reaches its destination. Cash transfers can be provided through other means even if the banking system is inadequate: In Somalia, remittance companies are able to distribute cash in local areas.
- But there are caveats to this recommendation. **Consider how to change the *modus operandi***. If the banking system is inefficient, or there is not the accounting and cashier capacity at local level, then these can all cause immense delays to making transfers which would be inappropriate to introduce in an emergency situation. Above all, cash transfers are not always suitable and may not necessarily meet the required needs. However when designing safety nets *ex ante*, these issues should not detract from challenging the status quo of in kind transfers.
- The case of Ethiopia's PSNP illustrates that it is possible to make structural changes in the provision of assistance and it re-emphasizes **the importance of establishing safety nets *ex ante* rather than reactively, in order to allow space for testing and improving delivery**, before being confronted with a major shock.
- Program designers also need to **think creatively about how to ensure timeliness**. What are the other available resources that can be drawn upon? In some contexts, the army may be a simple effective way of delivering transfers in the short-run, whereas new government departments with responsibility for organizing deliveries may lack experience and authority. Moreover, a variety of delivery methods can be used and may be more optimal than a single delivery system across the whole country.
- **This relies on thorough knowledge of the affected area, the size, differing environments, capacities and needs and a good grasp of local and informal transfer systems**. When implementing *ex ante* safety nets, challenge the way 'business has been done' and reflect on any systemic changes that could improve upon the conventional methods for delivering assistance.

5.6.2 Monitoring and evaluation

The main purpose of an M&E system is to establish whether the transfer is reaching the intended beneficiaries in time and of the right type and quantity. Strong internal controls help avoid fraud in a program. A monitoring system must also look at changes in negative and positive coping strategies of recipients. Regarding targeting, the issues are whether the geographic targeting is appropriate, whether the groups in greatest need have been correctly identified and whether the objectives are being achieved (WFP, 2006).³³ Beyond this, an M&E system can provide information to the public and program participants, in order to improve performance and is also a necessary forward-looking tool, to learn lessons from experience and improve future programs.

However, the paucity of available evidence on the effectiveness of transfers and safety net programs limits this opportunity both to improve current programs and to learn for the future. Challenges mean an M&E system is often side-lined, particularly in the face of an emergency. And these challenges look set to continue. Some of these challenges, which apply particularly to post-disaster programs are as follows (drawn from Fengler, McKeon and Fahmi, 2008; Parker, 2008, O'Donnell, 2008):

- Time-consuming;
- Difficulty of establishing a control group;
- Costly;
- Multitude of diverse agencies and agendas;
- Abundance of agencies and funds makes it difficult to track progress (eg Indonesia).
- Difficulty of establishing baseline data;
- Unstable environment after natural hazards;
- Requires good capacity to be effective and accurate;
- Lack of donor trust in government (eg Myanmar);

It is also affected by exogenous factors: in Indonesia, the abundance of agencies and funds made it difficult to track progress, while in Myanmar, the lack of donor trust in the government led to a shortage of funds to effectively monitor recovery and reconstruction (Fengler and McKeon, 2008).

This section offers some guiding principles of establishing a monitoring and evaluation system, and which draw on former impact analyses.^{34, 35}

General approach and focus of an M&E system

- **Follow a 'good enough' approach** in the short term. This is not a 'second best' approach to M&E, but is about ensuring a rapid response while recognizing that there is room for

³³ WFP's actual question was related to food transfers. WFP, 2006

³⁴ For an overall guide to Monitoring and Evaluation, see Grun, 2006 and Amin and Goldstein, 2008; for a compendium of impact evaluations see CARE's Evaluation e-Library: <http://icarenews.care.org/evaluationlibrary/>; a guide on M&E issues is the ProVention Sourcebook, <http://www.proventionconsortium.org/?pageid=62>; On accountability and impact measurement, see the Emergency Capacity Building Project: <http://www.ecbproject.org/what/accountability>

³⁵ Where not individually referenced, many of the recommendations are drawn from Amin & Goldstein, 2008a.

improvement. With respect to M&E, it advocates simple tools that are essential, quick and appropriate for the situation (Baker, 2008; see also Oxfam's The Good Enough Guide, 2007).

- Ultimately a **balance of quantitative and qualitative approaches, deductive and inductive approaches and with an emphasis on participation** is necessary (O'Donnell, 2008).
- Keep the scope of the system manageable by **keeping a realistic, limited but well-defined focus**, when deciding phasing, actors and the range of indicators.
- With regard to poverty and livelihoods, a lesson learned after Hurricane Mitch was that **more attention is needed to scale up programs and disaster recovery analysis needs to be better linked to assessments of social protection structures** (Cristoplos, 2008).
- Again, in Hurricane Mitch, there was little effective monitoring of community rebuilding and development. To improve this in the future, **gender and socio-cultural factors need to be measured, and data needs to be disaggregated across age and gender**, as large differences were observed between the two group types (Cristoplos, 2008).
- **“Opt for early preparedness** - more often than not tracking systems are created as an after-thought” (Amin and Goldstein, 2008a). Trying to institute this at a later stage can be even more complex and confusing
- **Consider using pre-existing mechanisms** for the M&E system. Linking to broader procedures and institutional structures can enhance the system's value, reduce costs and help coordination.

Sustainability of an M&E system: The need for ownership and openness

- Sustainability must be planned from the get-go and **international sponsors of the system should have a clear exit strategy from the beginning**. “Too often, systems are donor-driven and die out with the exit of humanitarian actors and donors...” (Amin and Goldstein, 2008a)
- Institutions matter! High level **government buy-in is essential as well as government ownership** to ensure sustainability of the mechanism.
- **Leadership and good staff capacity** are necessary – including a rolling training program to overcome the problem of staff turnover.
- **Establishing trust in the system and methodology is crucial for sustaining it** and without which all efforts can be undermined.

Data: collection requires a pro-active approach and should be accessible

- An initial **evaluation of the trade-off between data quality and costs** is necessary.
- **Data collection requires a pro-active approach**: there should be incentives to submit and use data and minimal costs to doing so; costs could be attached to non-participation and there should be wide publicity through mass media.

- A decision must be reached as to how available and open the data will be, keeping in mind that this is one way of building trust and maintaining support and remembering that **information-sharing is a public good**. Data should be publicized in a usable format
- The **location of an M&E system is important** and is often underestimated – it can be helpful to be located close to decision-makers (Amin & Goldstein, 2008a). Although beware the need to strike a balance between access/influence for decision-makers (upwards) and proximity and dissemination to the public and program participants (downwards).

5.6.3 Security

Security of both recipients and distributors needs to be assured – and the desirability of and relative invisibility of cash makes this an especial concern with cash transfers. Insecurity can increase participants' physical vulnerability: people know when payments are made and who has cash. Women, the elderly and disabled may feel particularly at risk. It can become a prominent issue if social capital has diminished following a crisis (this is particularly relevant to complex emergencies).

- Beyond increasing fears among the already vulnerable, there are other ramifications of this,: Recipients can be prompted to spend their transfers immediately: this raises the cost of transporting goods back home (rather than from the local area), and withdraws some of the flexibility of providing cash transfers –reducing the overall effectiveness of the program.
- If the security situation becomes severe, it may be necessary to deliver transfers in-kind, and/or to provide transfers to the whole community – again compromising the effectiveness of the program.
- If security is assessed to be a potential problem and is not addressed at the start of the program, higher costs may need to be spent subsequently, on providing escorts for the transfers and guarding the distribution system.

Ways to improve security:

- Minimize distances recipients have to travel to and from payment sites;
- Establish payment sites within small community areas, where social ties are likely to be stronger;
- Consider timeliness of payments as a security issue, which can impose additional cost and vulnerability on recipients;
- Utilize the army or police force to guard delivery of transfers and payments – but be wary if this will add to social tensions;
- Discuss security concerns and options with communities – and establish community-driven initiatives to safeguard transfers;

- Consider a banking system (including post office savings and credit options in local shops), so that recipients can both safeguard and store their money.

5.6.4 Opportunity costs

It is imperative that access costs for recipients are not excessive. Collecting transfers can have substantial travel, accommodation and childcare costs for beneficiaries, as well as work foregone. Delays in delivery can have similar costs. In emergency situations, this issue may be even more critical as people may have lost access to cash and services they previously used to collect their transfers. In the short-run, implementation agencies may find that transfers are easier to deliver in central areas as people may be congregated in central locations, and less dispersed amongst remote villages, but delivering in more remote locations can also be helpful in encouraging participants to return to their homes. Administrative costs too must be kept low, although again, in the early post-crisis stages, delivery costs may be unavoidably and necessarily higher.

5.7 From development to relief to recovery

Another advantage of safety nets is that they can be designed to expand and contract as needed and so can assist in the recovery process as well as be part of a risk reduction strategy. If implementation arrangements and budget can be scaled up rapidly to meet unanticipated circumstances safety nets may be counter-cyclical and serve an insurance function (Alderman and Haque, 2006). They can even serve as a bridge between the various stages from pre- to post-disaster.

5.7.1 Planning

One of the main lessons from the case studies is that response to natural hazards can be effective where there are well-defined management plans which are essential for high-risk countries. The argument here is also **to integrate hazard response into the general development policy and plans**. This needs to be effected at all levels – national risk-prone governments, regional organisation and bi- and multi-lateral donors.

The need to ensure programs are scalable is key for response to natural disasters. In high risk areas, **safety nets in place ex ante, must include disaster risk mitigation as one of their longer term development objectives**. This creates space for planning how to scale up a program – either in coverage (targeting) or size and type of assistance – which departments will be involved and how communication and resource transfer lines will flow.

Relief activities must be established within a longer term project cycle, so that there can be a seamless transition from relief to development and also to accommodate emergency operations which are now conceptualized in a longer term context. One such example is shelter. The lessons learned from the Pakistan earthquake and the Tsunami is that shelter provision cannot be seen as a short term or relief measure, hence must be approached realistically, more as a safety net than a relief operation.³⁶

This requires reorganization in the way that institutions are set up to respond to both disasters and development. Traditionally, the relief and development departments of governmental and non-governmental donor agencies have been separate, with distinct mandates. As we look to a longer term response, experience suggests that this is no longer ideal and we need to see more **institutional integration between relief and development divisions**.

5.7.2 Scaling up and the transition from short- to long-term assistance

Maxwell et al (2008) identify a number of preconditions necessary for scaling up social protection strategies. These are listed here but have been discussed in more detail earlier in this section.

- Build political support;
- Embed the safety net in legislation or at least the policy framework;
- Collect sufficient resources;
- Establish the institutional transition from emergency response to a longer term institutional home;
- Ensure that the transition does not jeopardize the transfer of resources;
- Target the program appropriately;
- Ensure the timeliness and predictability of the transfers;
- Combine transfers with a livelihood package and consider other linkages to support households.

Other design issues that also require attention in scaling up include³⁷:

- **Program objectives** may in some circumstances need to be modified.
- **Flexibility**: in a scaled up context, the safety net design must still be tailored to an even more diverse group of households. This means considering the differing needs of the new groups

³⁶ Oxfam's assessment of the response to the Tsunami was that the time take for home reconstruction was over-optimistic; with the multitude often inexperienced actors trying to provide accommodation, the community were uninvolved and had little ownership, and this even exacerbated the vulnerability of displaced families (Oxfam, 2008).

³⁷ Some of these draw on Wahenga (2007) Lessons from Ethiopia on a scaled-up national safety net program. Wahenga Brief, No. 14, August. Regional Hunger and Vulnerability Program (RHVP) www.wahenga.net

included; ensuring that the design does not conflict with seasonal and livelihood work schedules and minimizes disruption to other household activities.

- **Appeals and grievance procedures must be successfully scaled up** similarly, with the newly included communities educated about and included in processes.
- **Monitoring and information systems** must also be adapted to include new populations – as well as adjusting some of the evaluation and performance indicators as necessary.
- The additional responsibilities of **staff, their needs and additional capacity** need to be considered.

Along with the above, further issues to assist the transition from the short to medium and longer term safety net assistance

- **Build back better.** Livelihood packages and linkages to other programs are a necessary compliment in the transition from short term to longer term support and require innovative ways for rebuilding livelihoods that are more resilient to future shocks. This can be through standards as well as encouraging households to diversify their income: after the Tsunami, Oxfam focused on building up Sri Lanka's coir sector with impressive results that changed the face of the coir sector from one for only the very poorest, to one that cultivated a business culture in a women-led industry, tripled incomes and improved spending on health and education services (Oxfam, 2008). At the same time, in 'building back better', beware causing disaffection among non-participants, as happened after the Tsunami, in re-building housing in Sri Lanka which left non-affected neighbors with poorer quality homes (Kennedy et al, 2007).
- Part of the role of integrating DRM with development is to stall and anticipate future problems (Oxfam, 2008). While many issues arising out of disaster such as water, shelter, cholera, etc. are self-evident, some are more hidden such as HIV vulnerability. They may be managed within safety nets later on, but could have been initially addressed at the relief and short-term stages. A **pre-emptive approach to longer term issues** will smooth the transition between relief and development.

Error! Reference source not found. considers some the issues that need to be considered in an emergency plan which focuses on scaling up and adapting existing safety nets.

5.7.3 Military disengagement and foreign assistance.

Military assistance from both disaster-affected countries and donor countries often provide vital support at the relief stage of emergencies. They have the logistical and human resource capacity to deliver on a wide scale, basic needs, provide shelter and reach remote areas. But they do not have and

they should not have the know-how to deliver development programs. There are two closely-linked challenges: one, to ensure that military operations coincide with the objectives of the civilian-managed relief operation and second, to build the bridge from relief assistance to longer term rehabilitation, recovery and development.

There were mixed responses to the military involvement following the Tsunami. Numerous countries sent military personnel to assist in the relief efforts, but this was uncoordinated – both between the different national forces and with the civilian relief operations. “[D]espite the presence of humanitarian representatives, there was no one available with vested authority to argue, on behalf of the humanitarian community, regarding the prioritization of need across the region and the allocation of military assets to those areas” (Harkin, 2006).

- **Link the military with the development agency:** The military need to work hand-in-hand with aid agencies and operating principles need to be established for how and when the military will withdraw. Civilian personnel need to be placed within the relevant department and also field operations in order to do this. This is particularly difficult in situations when development work is conducted through contractors – such as with USAID.
- **Establish a line of command:** The aid agency should at all times be ultimately responsible for all relief/development operations. Ideally, military agents should be answerable to - even contracted by - the development agency, during relief operations. Although the reality of cross-ministerial/departmental accountability will present a political and institutional challenge.
- In the longer term, **de-link the military from development operations:** Both because development is seen as a national security issue and with the need to occupy troops not in active combat, the military in donor countries is increasingly assuming a development assistance role. This hampers the ability of development agents to complete their work and contributes to the uncoordinated, unfocused responses. It requires that donor governments ensure that they **equip development agencies with sufficient capacity** – both in physical and human resources - to carry out their tasks
- **Overcome the “large gulf” between humanitarian and development agencies** (DFID, 2004). Donor institutions must evolve as the approach to disaster management shifts from one of humanitarian relief to prevention and longer term development. DFID has already begun this process.

5.8 Financing

There are numerous mechanisms for funding safety nets and as emphasized in other areas of safety net design there are opportunities for being more innovative than looking to usual funding sources and

mechanisms. As evident earlier we really need to consider types of funding arrangements for two different disaster-related programs a) for preventive and ongoing (ex ante) safety nets; and b) for emergency safety nets that take place in response to a shock (ex post), although many mechanisms can finance both types. The emphasis here is on establishing long term funding, for whereas more attention has been given recently to risk reduction, “this has not yet translated into the long term investment necessary to decrease future vulnerability” (Maxwell et al, 2008). See also section 5.9 below.

In 2004, the World Bank estimated that economic losses worldwide from natural disasters in the 1990s could have been reduced by \$280 billion if \$40 billion had been invested in preventive measures (World Bank, 2005). The fact that some of the poorest nations choose to allocate their national budgets to preventive safety nets demonstrates that funding safety nets is a simple (albeit difficult) matter of prioritization and commitment.³⁸ When it comes to natural hazards, this decision is complicated by the unpredictability of disasters, hence the use of measuring the risk of and trying to assign a probability to a natural hazard. The higher the probability of a shock, the more a government should be inclined to fund safety nets, especially when this is combined with a highly vulnerable population. Mexico, India and the Philippines have created their own reserve funds for relief programs after natural disasters (Gurenko and Lester, 2004).

For lower risk hazards, there should still be prepared plans to implement safety nets that can draw down financing rapidly: emergency international appeals should be a solution of last resort. Funding can be flexible and the budget reserved for emergencies – as is the case with Mexico. Funding should also focus on the local level – such as through social funds, which have a good track record of fast disbursement in response to crises, even when financed externally by donors.

Finally, donor-financing needs to be effectively integrated into national financing systems to avoid the problems of parallel mechanisms and enhance government ownership, for example by channeling finance directly into governments’ disaster management funds. One concern about the availability of ex-post financing is that recipient governments then rely on the soft loans and grants provided by donors after a disaster, rather than adopt proactive measures – ex ante- to prevent the impact of disasters (CAS, 2009).

³⁸ The governments of Lesotho and Nepal both run their own non-contributory old age pensions.

5.8.1 Social funds

Community financing mechanisms, such as social funds provide financing for community-driven projects, grounded within and accounted by government structures. Their focus is on local capacity-building and they are demand driven, led and managed by the local community, NGOs and local government needing small scale investments across a diverse range of sectors, predominantly related to education, health and water. As they are already established in the government system, and so can rapidly access resources – either to locally affect pockets or nationally, and because they work at a community level, giving the community responsibility for spending resources, this makes them “amongst the most flexible and innovative instruments” (IEG, World Bank, 2006) through which to prevent and manage natural disasters.

They have several characteristics that make them particularly useful tools in disasters

- 1) They operate at the community level – they are therefore developed around local knowledge and local need and are effected at the first level of response at a disaster;
- 2) As the structure of social funds is decentralized, flexibility is intrinsic to them – which means that local areas can adapt the design of programs as best fits local needs;
- 3) The focus on capacity-building is essential for building effective management of and response to natural hazards
- 4) They can respond immediately to shock or provide longer-term support, hence complementing the need to bridge the short-to-medium-long term approach to disaster management that is frequently absent;
- 5) M&E systems are built into social funds.

Malawi’s Social Action Fund is one such example and it was tested during the 2003-5 food shocks. Giving local assemblies responsibility for the funds meant districts could pool their funds and decide the most appropriate use and spread of resources. This meant that the MASAF safety net design was flexible, with local authorities adapting the targeting and size of transfer. In further examples, Madagascar, Honduras and Nicaragua, ensured that social funds could be redirected to the most damaged areas following cyclones and hurricanes. Following the Pakistan earthquake, the PPAF was able to respond immediately. Within one day, disaster relief centers were set up and over 2000 communities received support and US\$220 million was soon delivered to households.

In general, social funds are still used infrequently, although they are more commonplace in Latin America – where they function in every country - than in Africa, which has around twenty social funds.³⁹ Often they are employed effectively ex post, as a disaster response. In this way, the Honduras Social Fund had approved 2,100 projects within 100 days of Hurricane Mitch and just over one year later, the fund had financed around 3,400 emergency subprojects – implementing projects at a speed four times higher than prior to the disaster. (Grosh et al, 2008) But they are still not fully appreciated for their ability to build capacity and strengthen resistance to natural shocks, so as yet, their experience in disaster risk management is nascent.

5.8.2 National Disaster Management Funds

National disaster funds are managed by the central government and are intended to mitigate the negative impacts of natural hazards, by strengthening disaster preparedness and response. There are different ways of managing these funds. One such fund is Mexico's FONDEN (Fondo Nacional para Desastres Naturales). It was established in 1996 as part of the federal budget to ensure that funds would be available in the event of a natural disaster so as not to divert resources from departments' ongoing programs and as a way to involve state and municipal government in disaster response. It also was a relief mechanism, as well as provides a safety net to protect low-income households affected by disaster. As it is an ex post mechanism, funds are allocated to whichever area has suffered most shocks during the year. This overcomes the politically charged problem of accumulating unspent funds, but it is still sufficient to cope with major disasters, such that even when Mexico suffered from the Tabasco floods in late 2007, which was said to be one of its worst natural disasters in its history, it still did not recourse to international appeal.

5.8.3 Private sector financing and other mechanisms

There are several other sources of financing, which while they may not be able to finance safety nets entirely, may contribute to the design. Informal transfers and remittances are a crucial coping mechanism for the poor to protect against idiosyncratic risk. Remittances alone are possibly greater than all foreign direct investment and aid combined (Savage and Harvey, 2007). While intra-household transfers may dry up following major natural shocks where the community at large is affected, external remittances can still be significant as the senders are less likely to be affected. The role of remittances needs to be better understood, but at the least, ways need to be found to facilitate remittances that flow in after major shocks nets (Savage and Harvey, 2007). This together with **the**

³⁹ Further information on regional use of social funds is available at the World Bank: <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTSOCIALPROTECTION/EXTSF/0,,contentMDK:20893987~menuPK:396384~pagePK:148956~piPK:216618~theSitePK:396378~isCURL:Y,00.html>

contribution of informal safety nets more generally, need to be integrated into a disaster management social protection and safety net strategy, to complement the provision of formal safety nets.

Public-private partnerships are another source of financing that are still infrequently utilized in disaster risk management and social protection. This is a controversial but still under-researched area. While their role is limited in terms of providing social safety nets, it may be possible to explore the scope for working with the private sector in public works and also, insurance mechanisms.⁴⁰ Another interesting donor mechanism established to help countries affected by a disaster to coordinate their external assistance is the Disaster Management Fund for the Eastern Caribbean Donor Group (ECDG). It is not a safety net fund but it is an initiative for ex post disaster management, to coordinate the array of external assistance. Particularly noticeable about this initiative is that it is a combination not just of bilateral government and multilateral donors, but also of corporations. This interplay with the private sector could be a valuable link in assisting recovery of infrastructure.

As mentioned in the introduction, one of the problems for middle to high income countries in particular, is that the impact of a disaster can have enormous economic consequences for the affected area, even if little impact on national growth. Government intervention must be able to control this problem. In Cuba, the government, not the private employer, provides insurance against lost production following shocks. Although this is a burden on subsequent public expenditure, it seems to work successfully in Cuba, as it means that losses are dispersed across the society, and are not concentrated in the affected area, which would compound the negative impacts of the hazards (Oxfam, 2004).

5.8.4 Multilateral donor funds

There are a number of multilateral funds for financing disaster response but they tend to focus on relief efforts. If they prove to be effective they could be adapted to finance disaster prevention strategies. The UN Central Emergency Response Fund aims to provide funding for immediate life-saving assistance at the onset of a humanitarian crisis. The Common Humanitarian Fund was to improve planning, prioritization and timeliness of response. The Consolidated Appeals Approach, like the CERF requests pledges from donor countries, but this time for broader development objectives following emergencies. Such initiatives account for less than ten percent of annual official

⁴⁰ Of the US\$65 billion of damage from natural disasters around the world in 2003, only US\$15.8 billion was insured (World Bank, 2005).

humanitarian funding (Maxwell, 2008). Multilateral funding initiatives are discussed further below, in section 5.9.

5.9 The international context

There has been general growing attention in disaster risk reduction from the international stage, but although it can be implicit to strategies, the role of social protection as one of its pillars has been less vocalized. At a national level a few countries such as Mexico and Cuba have adopted safety nets as an integral part of their disaster mitigation policies. At the regional and international level, while there is increasing support of multilateral approaches – such as the Association of Caribbean States, the Asian Development Bank, the International Strategy for Disaster Reduction (1999) and the Hyogo Declaration and Framework for Action 2005 - social protection as part of that approach has been slower to catch on. This oversight is largely due to the tendency until recently, to regard natural disasters as exogenous events in the development continuum, rather than as integral to it. Thus social protection, which falls within the development rubric, has barely entered the disaster management handbook.

Instead, donors remain responsive to emergency appeals rather than prevention, for three core reasons. From a political perspective, preventive mechanisms have little tangible benefit in the short term, for politicians. This is exacerbated by media pressure which focus on the disaster as more newsworthy (DFID, 2004; Peppiatt et al, 2004). At an institutional level, there is a lack of trust between the humanitarian community, actors, donors and national governments which has “limited the capacity to link analysis to programming.” The gaps in conceptual analysis, policy, programming and funding have led to an emphasis on response rather than prevention. Finally, combined with an aid architecture that is slow to reform, this has inhibited merging the boundaries between link relief and development (Maxwell et al, 2008).

The above discussion has already emphasized that recovery and rehabilitation requires a long term commitment – both political and financial.⁴¹ But this has yet to be to be fully accepted by governments, donors and even civil society. The World Bank IEG evaluation observed that the time needed to carry out disaster-related lending is consistently underestimated and concludes “the development community should engage with disaster-stricken borrowers earlier and stay engaged longer.” (World Bank, 2005) After the initial humanitarian phase and once a disaster has left the

⁴¹ Tearfund advocates that ten percent of all donor humanitarian assistance should be channeled into disaster risk reduction (Tearfund, 2008).

public eye, pledges are frequently dropped and longer term commitments of resources are not forthcoming, severely inhibiting the recovery process. This is particularly true if a situation becomes politically volatile. Indeed, awareness that donor funding may only be available for a short time, can be problematic as there is an incentive for government departments and NGOs to access as much money as they can before it dries up. This could lead to higher inclusion errors and greater risks of corruption (ref). If fears of malpractice were assuaged governments, implementers and recipients could feel more secure that there would be continued access to funding. This in turn might reduce some of the moral hazard problem. The key message is that both **governments and donors need to commit to a vision of long-term funding for the recovery process.**

Put the community in the driving seat. The emphasis needs to be on locally-driven solutions, Firstly so that responses are tailored sustainably, to local needs and move away from a blueprint and secondly because local people are the first ones to provide assistance when a disaster does occur. Houghton, 2007 observed of the Tsunami response that international agencies often erroneously overlooked local capacities and that involvement was most effective when enabling, facilitating and supporting local actors.

Streamlining procedures is necessary for accessing rapid financing in an emergency, by reducing processes for procuring and contracting work for relief and recovery. Some institutions have been able to slim down their procedures, but this seems to be implemented ad hoc. The World Bank has worked to streamline and reduce its operating processes during crisis and emergency response under OP/BP 8.00, so that emergency support and loans can be disbursed rapidly. Organizations should have disaster emergency procedures which allow them to automatically operate on a simplified basis. Such downsized procedures would require:

- modifying procurement rules;
- shortening deadlines for bid invitations and sole sourcing;
- contracting out; and
- providing higher advances as incentive for construction work in harsh, difficult conditions.

Effective, coordinated and sustainable international responses. Despite commitments to the twenty-three Principles and Good Practice of Humanitarian Donorship agreed to by most major bilateral donors in 2003, funding for humanitarian emergencies remains arbitrary. Combining this with the UN ‘Delivering as one’ approach to development, could make the way for a more integrated approach to donors managing natural disaster prevention and response missions. The Tsunami revealed the worrying extent of “uneven, inequitable flow of funds for emergencies that encourages

neither investments in capacity nor response that are proportionate to need.” Vested and short term interests seemed to take precedence as “donors often took funding decisions based on political calculation and media pressure” (Houghton, 2007, 40). The UN’s Cluster System Response which categorizes relief efforts into nine areas has had some success in improving the coordination. It was first used to respond to the Pakistan earthquake in 2005 with mixed reviews.⁴² But it may yet emerge as one way of improving coordination and knowledge-sharing.

This above issue of effectiveness of donor aid suggests the need for **greater transparency and accountability** in donors’ involvement in disaster relief and recovery work. Despite several initiatives to improve the quality of humanitarian work, there is no effective mechanism to sanction agencies for failing to meet their provisions. Improved access to information will raise the external pressure from the donor media and taxpayers to improve the quality of response (Houghton, 2007; Peppiatt et al, 2004). The continued emphasis on the outputs rather than the outcomes of emergency assistance blurs the results in reporting and puts few demands on project and agency managers to ensure that assistance is effective. Maxwell et al identify “skepticism” in the way that donors make their assessments and decide to allocate their resources (Maxwell et al, 2008). Donors need policies that are more accountable to the recipients of assistance, while at the same time, donors’ parliaments have to be educated to ask the correct, challenging questions about what their aid has delivered.

Pooled initiatives These initiatives seem pragmatic and may assuage concerns about delivering funds directly to disaster-affected governments but implicitly these face resistance from funding donors. National leaders stand to gain political capital from bilateral assistance and are understandably reticent to relinquish their oversight, control and expertise by contributing to a pool to finance projects. Such initiatives need to improve their credibility, but until they are shown to operate effectively, have significantly faster response times and effective capacity to deliver and monitor results they are unlikely to receive the resources necessary to do so. Thus, numerous reform processes for coordinating assistance face severe challenges – The Good Humanitarian Donorship Initiative, the Humanitarian Accountability Project (HAP) and the Action for Learning Network for Accountability and Performance (ALNAP). As a whole, the humanitarian community needs to focus more on influencing the policy process, advocacy, gaining an evidence base and mobilizing the demand side (Maxwell et al, 2008). But if there is hesitancy to develop an integrated disaster mitigation

⁴² Street, A. and G.Parihar (2007) The UN Cluster Approach in the Pakistan earthquake response: an NGO perspective; Humanitarian Exchange Magazine No. 37, March ODI. A second UN review of the cluster approach is currently underway.

mechanism, then there is still a role for **a knowledge bank where national planners and project designers can access information and expertise on safety net experiences.**

For notes on making the bridge **from development to disaster management and relief to recovery,** see section 5.7.

6 Conclusion

With the human toll from natural disasters each year coupled with the increasing financial cost of recovery, there is general agreement that response to and mitigation of natural disasters is insufficient. Measures to prevent disaster often fall between two separate disciplines – relief and development work, with each seeing disaster prevention as the task of the other. Since the 1990s, efforts to improve disaster management have taken numerous forms from national policies to regional coordination frameworks to international disaster funds but these tended to look at technical preventive mechanisms related to standards and procedures, and left the focus on people and livelihoods to the relief and recovery process. It is only more recently that this focus has begun to shift towards one that focuses on agency and improving the capacity of households to cope with disaster risk.

This paper made the case for using safety nets to prevent and recover from the impacts of natural disaster. Then, it considered some ‘guidelines’ for implementing safety nets either to prevent and/or to recover from natural disasters. This conclusion follows the same structure.

6.1 Why safety nets for responding to natural disasters?

The relevance of considering safety nets as an essential part of the response to natural disasters is based upon (i) a longer term approach to natural disasters which sees these hazards as intrinsic to the development process and hence part of broader efforts to reduce vulnerability and alleviate poverty; (ii) an assertion that one of many mechanisms to mitigate the impact of natural hazards is to build households’ resilience to natural shocks; and (iii) a need to minimize impacts upon the local economy and for the poorest countries, the consequences on national growth.

The traditional policy approach to disasters has been disaster risk management. This focuses on minimizing human loss and containing damage and economic losses. DRM sees natural hazards in isolation – the starting point being the shock itself - rather than nestled in an environment which can assist or detract from its objectives. Social protection is a more holistic approach, and while DRM is incorporated within it, DRM is lacking in three interlinked ways. It is not particularly focused on the poor, nor does it take a contextualized approach that allows a focus on livelihoods, as well as a longer term perspective. These three aspects are intrinsic to social policy and social protection. Social protection works with the public, the private and the informal sectors. Social safety nets, can work through these sectors to focus on individuals, households and communities. The transfers are to protect households and individuals but may also have transformative consequences.

Natural disasters can be classified according to the type and timing of risks – measured by both impact (outcome) and frequency. The two types of natural disaster, geophysical and hydro-meteorological correspond with the extremes on the risk scale. Geophysical disasters (earthquakes, volcanoes, tsunamis) tend to be low risk, but they are rapid onset and have a high impact. Hydro-meteorological is of two types: rapid onset and extreme (hurricanes and cyclones). The second group of hydro-meteorological disasters includes droughts, floods and erratic rainfall. They are higher risk (frequency) but usually slow-onset. Even these distinctions are open to challenge, as it is generally accepted that climate change is affecting the frequency of rapid-onset hydro-meteorological disasters and the impacts of disasters are often poorly monitored, but albeit simplified, this is encapsulated in a simplified form in Table 2.

What stands out starkly in this risk matrix is high frequency natural events evolve into disasters only in low income countries. The implications of this classification for safety nets are as follows: For the low risk, high and rapid impact disasters, safety nets as a preventive mechanism have relatively little value because the destruction to assets and buildings and livelihoods is so extreme. To *reduce* the risk of these disasters, ex ante safety nets are probably not an effective tool. However, in the aftermath, they are one of an array of important tools for relief and recovery of people and their livelihoods. For slow onset hazards, it is necessary to address the underlying poverty and vulnerability as much as the shocks that triggered the crisis. Safety nets are a necessary tool to help prevent disaster, as they provide transfers, support consumption and help with asset building in order to increase the ability of people to withstand these types of shocks.

A lack of political will is one of the main hindrances to implementing safety nets. It is argued that they create dependency and are regressive, thus financially unsustainable. While they can win political capital amongst the poor, they can lose it among the financial elites. Moreover, they can create a demand which politicians are uncertain they can sustain. In Cuba with a well developed network of safety nets, “[p]eople basically expect this commitment on the part of the government” (Oxfam, 2004). This is precisely their value, because in the long term, this forges a social contract between state and citizen, whereby the government – and donors too - can be held to account if they fail to protect its people.

Box 4. Summary: The contribution of social protection and safety nets to disaster prevention, mitigation and recovery

To summarize, the contribution of the contextualized dynamic approach of social protection to manage disasters are the following:

1. It views the development trajectory as an uneven continuum, in which can be distinguished different 'layers' of risk and into which, natural hazards can fit as endogenous events, that can be internalized into planning.
2. It focuses on the poor - who are risk averse and can afford fewer chances to move to less hazardous situations.
3. It views the varying levels of poverty as dynamic, which people can fluctuate into and out of.
4. It focuses on people as agents of change – which creates the space for community-driven responses.
5. It focuses on sustainable livelihoods, recognizing that some require assistance to become self-supporting, or to maintain their resilience if they suffer shocks.

This differs from DRM which focuses more at the macro-level and which has a more static unilateral approach to natural disaster.

The major contribution of safety nets is five-fold.

1. Prevention is cheaper than cure: Safety nets can help prevent the negative impact of certain types of natural shocks from developing into disasters by reducing the vulnerability of households.
2. They are also a more generic poverty and disaster reduction tool – and so can achieve multiple objectives – both poverty reduction and for prevention of certain types of disaster.
3. Where operating in a country already, they can be relatively easy to scale up in the event of a shock and scale down by altering the targeting and transfer levels; they therefore can transition from short term to longer term rehabilitation after a shock.
4. They can help create a social contract between state and citizen, where the state can be held accountable for protecting its population.

Safety nets are important in the aftermath of disasters generally, but they are particularly important in helping to prevent impact of slow onset, hydro-meteorological disasters.

Therefore the argument is that safety nets must be incorporated into risk strategies. Safety nets need to be part of the risk prevention policy – for countries exposed to high-to-medium risk hydro-meteorological hazards. They need to be incorporated as part of the short to long term rehabilitation process in disaster recovery plans.

6.2 Key issues to approach, design and implement safety nets for natural disasters

Without a comprehensive understanding of the context in which a safety net is being implemented, it is difficult to create an effective program. Section 3 set out to show through the case studies, how avoidable mistakes had been made because of a simple failure to properly assess a situation. This is more understandable when implementing a safety net – ex post, and at speed. This can be summarized in ten key points:

1. Three types of safety net for natural disaster were identified: (i) Ex ante safety nets, which focus on reducing vulnerability and overall poverty, which in turn increases the resistance of households to slow onset and weather-related natural shocks. These can also be scaled up if a shock deepens; (ii) Ex post safety nets which are planned in advance to kick into effect after a shock and/or in response to certain agreed triggers; and (iii) Unplanned ex post safety nets, implemented in response to a sudden, unexpected need.
2. This paper advocates using this third type of safety net only if necessary, ex ante and ex post planned safety nets should be set in place instead. It urges that states design safety net plans to be used in case of a sudden shock, especially in high-risk countries, whilst recognizing that there are financial and possibly political costs of doing so. For countries at risk from slower onset and weather-related hazards – inevitably low income countries, implementing ex ante safety nets is essential for reducing poverty and vulnerability that causes susceptibility to natural hazards.
3. Ex ante safety nets to prevent impact of (slow onset) natural disasters are not stand alone mechanisms, but are really synonymous with safety nets for poverty reduction and asset protection and therefore need to be integrated into poverty reduction policy and safety net programs. Linkages to other services such as income generating projects or remittances, are particularly important particularly at the pre-disaster and in the medium-long term recovery stages. Safety nets alone are also by not sufficient for disaster reduction. In most contexts they must work in tandem with other approaches such as early warning systems⁴³, building regulations, flood barriers and environmental protection. Some of these issues were covered briefly in section 4, but extend beyond the scope of this paper.
4. The design of a safety net must focus on the needs of different vulnerable groups within the targeted population. This includes the sick, injured and disabled, orphans, carers and female-headed households – whose needs may be particularly acute in the aftermath of a disaster.
5. Ongoing understanding of the contextual situation is necessary, to identify and rectify problems – particularly when programs have been set up in haste.

⁴³ See Peppittatt et al, 2004, for more on integrating early warning systems into programming and project design.

6. As the local community holds the most knowledge of the local situation, community participation in the design and implementation process. In general safety nets should be as decentralized as possible in order to be best suited to the local context.
7. Safety nets are sensitive mechanisms – small ‘tweaks’ to the design can have significant effect on impacts of the program. Although they share a common structure, they cannot conform to a blueprint and must be tailored to the needs of the community, hence the need for substantial community involvement to help shape their design.
8. While the design structure of safety nets is largely consistent, there is considerable scope for the particular characteristics. Project designers can be more ‘creative’ in their approach – resisting conforming to a few landmark programs and paying more attention to the nuances of the individual situation. Focusing on the ‘build back better’ approach to disaster recovery can help this – so that for example, ways to create more durable or profitable livelihoods can be found
9. Baselines, monitoring and evaluation are crucial to safety nets, with respect to problem identification, impact evaluation and lesson-learning. The system requires mechanisms that provide horizontal and vertical linkages between and across administrative layers and enable systematic information-gathering, analysis and follow-up of targeting and appeals in order to strengthen transparency and accountability (Wahenga, 2007).
10. Instituting safety nets as part of social protection for managing disaster risk, requires policy changes, media interest and donor commitment.

6.3 Key issues for the design and implementation of safety nets for natural disasters

Natural disasters and poverty are bound in a mutually reinforcing crisis cycle. Building the resistance of people and their livelihoods to disaster requires addressing the underlying poverty. At the policy level, they need to be seen as part of the problem of poverty. At the program level, they need to become embedded as manageable events within the project cycle. At the institutional level, the development and humanitarian arms of affected governments, donors and NGOs need to be better integrated.

1. Context. A thorough understanding of the context is essential to good design, without which, programs tend towards blueprints rather than a contextualized program. Safety nets can falter particularly during targeting, due to lack of knowledge about the population. Section 3, explored six factors that should frame the design of safety net programs following a natural event.
2. Policy environment. Ideally safety nets for disaster risk reduction, should be embedded within national policy. Lessons from *ex ante* safety nets in Bangladesh illustrated this. The government

had implemented a series of changes to the agricultural structure of the country, which when coupled with social safety nets, meant the poorest were less vulnerable to subsequent floods.

3. Strong analytical basis. It is important to establish an effective early warning system, cost-benefit analysis, environmental assessment, rapid response assessment.
4. Differentiate between vulnerable groups. SSNs need to be tailored to the needs of different groups, differentiated for example, by income, livelihood, and by capability (such as disabled, pregnant and nursing mothers, female-headed households, the older generation and orphans). Also give attention to the needs of host communities to minimize friction and ensure that they do not adversely suffer due to incoming migrant groups.
5. Infrastructure and human capacity will influence how to organize and deliver transfers. Lack of capacity should not detract from achieving long term shifts in how business is done. Training, upgrading and re-planning exercises must be ongoing.
6. Programs should make use of and strengthen existing safety nets, management and delivery mechanisms where appropriate.
7. Disruption to the affected and host groups should be minimized. It may be better to shelter disaster-affected groups on/near their original plots of land rather than re-house them away from the affected areas, but to ensure (Kennedy et al, 2007). This highlights how the type of assistance in the emergency phase can assist the recovery and rehabilitation phase, underscoring again, the need for a pre-planned safety net strategy.
8. Consider how to involve other potential safety net actors: informal safety nets – such as encouraging ease of access to remittance transfers; utilizing the private sector.; etc.
9. Institutional management. The implementing department must be well mandated to implement the program and sufficiently empowered to foster coordination rather than competition with other departments. The implementation of safety nets should be as decentralized as possible, so that local administrations can tailor the program to local need. Plans must include management and coordination of external donors after a disaster.
10. Targeting should involve the community as much as possible, including through the appeals system. There is a trade-off between cost and effectiveness of targeting.
11. Transfers: Cash is advocated where possible although it should be noted that in several evaluations, participants say they prefer a combination of cash and in-kind transfers because this can fulfill a variety needs.
12. Delivery is concerned with timeliness, frequency, and quantity. This may need to be flexible to meet different needs, particularly with large scale safety nets and so that they can be scaled up in certain areas when a shock occurs. Security and cost to recipients are also important issues, particularly in the aftermath of disasters.

13. M&E is crucial at all stages of the safety net. This is rarely sufficiently resourced and inhibits improving the current program or building a knowledge bank of effective practices.
14. Financing: There are a number of financing options for a safety net. Nationally, there are interesting innovations with revolving disaster funds in Mexico. There may be options for public-private partnerships, also. At the international level, coordinated safety net disaster funds, can provide more accountability for donor money than haphazard emergency appeals.
15. The shift from the relief to recovery and rehabilitation. On the design side, this involves reconsidering changing the type, quantity, targeting and scale of transfers and requires linking to other programs and services. On implementation, it requires reassessing how the safety net is implemented – such as demilitarizing relief and integrating relief and development agents.
16. Phasing out a safety net can face resistance where it has become perceived as an entitlement. Firstly, it is necessary to manage expectations and precede the safety net with a strong information campaign that informs recipients as to the purpose and proposed duration or entitlement to the transfers from the start. Secondly, programs should be phased out gradually, by offering other lines of support such as income-earning opportunities, employment schemes and credit.
17. The role of governmental and non-governmental donors. (i) Without some accountability or sanctions in disaster management, we may not see effective protection of those vulnerable to disaster. (ii) Natural disaster also has to be incorporated into risk management policies, with safety nets as part of that risk reduction policy, as DFID has begun to do. (iii) An ethos of coordination not competitiveness needs to be nurtured within the donor community.

The main observation from the case studies validates previous findings that natural disasters are not simply the result of ‘natural’ forces. On the human development side, the factors are poverty and vulnerability, and on the structural side, insufficient early warning systems (or capacity to react to them) and lack of preventive infrastructure such as flood barriers and building standards. This paper focused only on the former. The characteristics of safety nets makes them a good mechanism for addressing the poverty factor and also to help people and their livelihoods to recover in the aftermath.

Sub-Saharan Africa and Asia lag behind South America in establishing safety nets. In Asia structures are being put in place including at the regional level, whereas in Africa they are particularly insubstantial. Although they are increasingly on the agenda, uptake of safety nets rapidly is a hefty challenge and there are some champions – Malawi and Ethiopia. South America and the Caribbean are far ahead, with a social safety net welfare system functioning in each country, which makes it far easier to integrate into a disaster reduction and mitigation policy. This welfare system is an important

part of disaster response, as Oxfam observed of Cuba's effective disaster risk management strategy, because it means that people do not enter the system when they are affected, but are already part of the system and can be more easily monitored and accounted for when a shock occurs (Oxfam, 2004).

Countries should be encouraged to build up their own forms of resistance to natural shocks, which can be accountable not just to donors, but to the society. Cuba's impressive approach to risk management appears to be embedded in the social and institutional fabric of society (Oxfam, 2004). Safety nets and disaster management plans should continue to be lobbied for among governments, although this will take time to establish in each country. Donors need to be cognizant of this reality and also provide a stimulus and structure with which countries can build up their safety net portfolio.

Ex ante safety nets can come about in two ways. Firstly as a concerted policy decision, as with Ethiopia's PSNP which was "the first attempt of the humanitarian community to approach risk in a social protection fashion, determining in advance of a crisis...intervening with mechanisms that are then able to avert or mitigate a crisis before it occurs." (Maxwell et al, 2008). While this approach is advocated in this paper, empirically, emergency safety nets are usually the catalyst for long term safety nets. "Experience shows that major disasters trigger changes in national institutional and legislative systems and offer the prospect to get political commitment for long lasting improvements." (Demeter, 2007, 2). So disasters can provide the impetus to institutionalize safety nets both to address chronic poverty and to protect against and scale up when the next disaster strikes – as occurred with India's MEGS and the Bangladesh VGD program. The simultaneous occurrence of natural disasters and the implementation of safety nets creates need for and generates government commitment to deliver protection for its citizens and this builds the social contract, by which government can be held accountable for doing so.

Preparations for this paper also revealed a number of gaps in the literature that require further research. This paper exposed once again the weakness in knowledge and understanding of how to implement safety nets and in the translation from the drawing board to the field. This requires more rigorous data collection and analysis of the safety nets that are currently run or being piloted, which can draw attention to innovative safety net designs. More evidence needs to be gathered about the impacts that safety nets have had in both preventing and recovering from natural disasters. A careful review of the results of surveys being undertaken in Aceh and Pakistan for example, will be worthwhile. Measurement of disasters continues to be registered in the negative in terms of lives lost and infrastructure damaged, rather than lives saved and crises averted, hence it is even more difficult to broadcast the safety net success stories. Linked to this, measurement of costing and cost-benefit

analysis of preventive measures need to be improved (Maxwell et al, 2008). The contribution of public works to natural disaster reduction needs to be more comprehensively assessed, in particular. Safety net ‘champions’ need to be identified and lessons learned from experienced countries as to how and what they did to successfully lessen the toll of natural shocks on their population. Some aspects of safety nets may provide opportunities for engaging with the private sector, but so far these are little known or considered. There is scope for improving the role of the informal sector with regard to both prevention and mitigation of natural disasters and efforts need to go into encouraging and complementing them during smaller shocks and in times of crisis.

To establish safety nets *ex ante* and plan for safety nets *ex post*, requires improving experience-sharing and expanding knowledge for different safety net programs, effective design and planning and long term investment. What is first required, is the concerted political will to do so.

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ANNEX I Case studies

AI.1 Bangladesh: Cyclone Sidr, November 2007

On November 9, 2007, Bangladesh's advanced warning system for tropical cyclones tracked an intense storm heading towards its south-eastern coast issued a 'great danger' signal. Sustained wind speeds of up to 210kph were predicted within 74km of the storm's center as well as a coastal storm surge. Bangladesh's Cyclone Preparedness Program went into action. Its 44,000 pre-organized volunteers were mobilized to implement a community-based warning system utilizing megaphones and other modes of communication.

Three million people were evacuated and 1.5 million were accommodated in cyclone shelters by the time the cyclone hit early on the evening of November 15th. From November 13th, cash, rice and house-building grants were issued under the National Disaster Management strategy. Within one month, \$217 million was received from the international community, (despite no formal appeal). The focus of attention was on female-headed households (at least five percent of the population). Government relief programs and Most NGOs provided relief in kind, while national organizations waived loan payments owed by those affected. Of the fifteen national and international organizations that provided assistance, only four provided cash (two provided one-off bereavement compensation, and Grameen and ASA temporarily suspended installment payments from borrowers). A monitoring and evaluation system were also prepared and in place.

Background

The Bangladeshi government had been faced with repeated floods every three years. It embarked on a multiple-pronged and long-term strategy to reform the country's susceptibility to these events. Not all of its mechanisms for risk management were so calculated: for over a decade it had been committed to a long-term liberalization plan for the rice market structure, which helped ease the impacts of the 1998 floods. When faced with a poor harvest and insufficient food aid in 1997, it embarked on a shorter term plan to a) maintain the food markets and b) provide assistance if needed.

1. It accelerated its liberalization plan, by continuing to encourage private sector imports of rice by decreasing import tariffs and caps on rice imports and expediting the customs process. These both stabilized local prices, but made it profitable for traders to import rice from India. By sustaining this open policy to private imports of rice, prices did not increase too much, once the floods began. The share of the private sector to the rice market at this time was six times the government's contribution and the government had reduced its previous reliance upon public sector interventions.
2. The government also had the foresight to recognize that in the face of recurrent floods, the current agricultural practices were unsustainable. It made a structural change in Bangladesh's agriculture. It increased investment in the *boro* winter crop in order to decrease the country's dependence upon the flood-susceptible monsoon season crop. By expanding the private market sector also, the markets developed quickly and could respond to the shortfall in production.
3. It also continued to provide government assistance to affected households when needed through its safety nets. The government still distributed rice to flood-affected households through its two programs: immediate relief through Gratuitous Relief (to 16.2% of affected households) and ongoing support for the poorest through Vulnerable Group Feeding (41.5% of households).

AI.2 Ethiopia: The 2008 food emergency

Following a poor harvest in late 2007 and the failure of the first rains in February-April 2008, WFP nutritional surveillance activities noted exacerbated rates of malnutrition. The alert was even raised early on, where the late 2007 rains had failed in the southern areas. Several types of people requiring food assistance have been identified: (i) drought affected areas outside PSNP woredas experiencing serious malnutrition, (ii) PSNP participants in drought-affected areas; (iii) non-participants in PSNP drought-affected woredas . The food needs for Ethiopia in 2008 are double that of a non-drought year. This year, 380,000MT (approximately \$300 million) are required to meet emergency needs.

To meet the needs, Donors have pledged an additional US\$ 60 million in cash (US\$9.8 million from DFID and \$50 million from the World Bank) and approximately 60,000MT in grain (19,000 from CIDA and 40,000MT from WFP's Global Resources. This will provide those in hot-spot areas with three months of additional food and participants in drought-affected PSNP woredas (without serious malnutrition) will receive an additional two months of resources. Those outside PSNP woredas will be covered by the Emergency Appeal.

The Productive Safety Net Program

Ethiopia's PSNP employs approximately eight million food insecure citizens annually across the four major food insecure regions and two city-states in the country. Employees are paid with food and/or cash in return for work on community-based public works activities for up to 6 months of the year. Public works are based on the communities' Watershed Development Plans. Activities include environmental rehabilitation, improving agricultural productivity and improving access and services for the community. The program year begins in January; payments are monthly and are expected to be completed by the end of July. Labor-poor households, which included the sick, the elderly, children and pregnant and nursing mothers, may receive 'direct support' instead of working on the public works. In pastoral regions, the program runs for nine months of the year, due to the extended food shortages in these areas.

The program has two types of contingencies. The larger contingency component that is in the process of being set up is to meet transient food insecurity and respond to longer-term needs by establishing a fully scalable program (discussed below). The other contingency that has been available throughout the program gives regions access to twenty percent additional resources as a contingency each year. This allows them to employ additional people if there is a high demand for the program or extend the length of months that any one household/individual is covered by the program. Of this twenty percent, seventy-five percent is held at regional level and twenty-five percent at district, or *woreda*, level.

Targeting is conducted in September, preceding the start of the PSNP cycle in January. This who, and for how many months each participant will receive transfers for that year. After three months of transfer, there is a re-targeting exercise to correct any exclusion errors and to verify whether those already on the program need an increase or decrease in months or type of transfer. The contingency funds are drawn on to meet these additional resource needs. In reality, the huge numbers of chronically food insecure households combined with the pressure on resources to limit participants in the program, means that each year the contingency funds are used in several regions *de facto* to increase the caseload – as a buffer, instead of being reserved for a re-targeting exercise in a critical year. Unused contingency funds in one year run over to the next and are only 'topped up' to the twenty percent of that year's base costs. This creates an incentive to spend the contingency each year. To a very limited extent therefore, the program is therefore already scalable, or at least, expandable to meet the most desperate needs.

AI.3 Pakistan: Earthquake, October 2005

The Pakistan earthquake affected two main areas of northern Pakistan, Azad Jammu and Pakistan-administered Kashmir (AJK) and the North-West Frontier Province (NWFP). This is a mountainous area of approximately 5.7 million people (World Bank, 2005), densely populated in the agricultural areas with poor links to main urban areas, which is especially isolated in the winter months.

There are mixed livelihoods patterns for the rural population. While most households work on farmland, despite the limited potential of agriculture in the area, livelihoods are predominantly cash and market-based. Agriculture acts as a safety net for better-off households but is a more permanent income stream for the poorest. Remittances are widespread and one of the most important sources of income representing 34% of income in 68% of households in AZK and 25% for the poorest 20%. The average monthly wage is Rs 4,000 (US\$67) in rural areas.

Basic services and utilities are low. There are a number of state transfers aimed at the poorest, which are administered by local committees. The Zakat cash transfer delivers Rs200/month (US\$3.4 in 2005). The Pakistan Bait-ul-Maal is a collection of cash and wheat subsidy schemes, of which the largest is the Food Support Program, aimed to assist the poorest households with food purchases. It provides Rs3000 per year (US\$50.30 in 2005). Therefore, compared to the average monthly wage, these transfers are extremely low. Moreover, levels of corruption and patronage are believed to be high within the program. There are also a number of micro-credit programs. But there is an absence of public social protection which can provide reliable income support. Poorer households survive on subsistence agriculture, shop credit and informal transfers from the community.

On October 8th, 2005, a major earthquake took place over a 30,000km² area, northeast of Islamabad. The event measured 7.5 on the rector scale and was followed by over 2000 seismic aftershocks, leaving 200 million tons of debris. 73,000 people were killed, 69,000 were severely injured, 128,000 were injured, and 3.5 million people were left homeless. Women and children were the largest groups affected, as well as the disabled and orphaned children. Infrastructure was badly damaged: with the destruction of 80% healthcare and most educational facilities and destruction or damage to 60,000 homes and 6,400km. On the economic front, the earthquake was projected to have a negative 0.4% effect on GDP and a regional decrease of 10% productivity in NWFP and 50% in AZK. In AZK alone, 80% of standing crops were destroyed and over 50% of arable land became unusable. There was huge disruption to rural and urban livelihoods, with initial losses of 33% in agriculture, 60% in the manufacturing industry, over 50% losses in both trade and transport. The dependency on informal employment, remittances and secondary sources of income was such that lost employment was likely to have a profound effect on the levels of extreme poverty for households.

By October 10th, the Federal Relief Commission was created to coordinate all response. Two weeks later the Earthquake Rehabilitation and Recovery Authority was formed. The military response was immense and effective, although initial relief response was slow. International agencies and donors responded slowly due to a combination of factors: some were not operating in Pakistan and so lacked knowledge of the area; there were poor relations with the government; commitments were already stretched following the Tsunami and the Sudan crises; and the military were reluctant to release maps or satellite images because of the conflict zone. After three weeks a National Action Plan was released.

Several other issues affected the type and speed of response. The earthquake followed local elections and a period of change in local administration. Aside from the military government at the time, there has also been an ongoing military presence and a history of armed groups in both areas. Indeed, attacks and killings were ongoing even in the aftermath of the earthquake. Poor weather hampered the medium term efforts, as snow began in November severely limiting access to

mountainous areas. The priority was to build shelter and then look for labor, although men were reluctant to leave women and children in camps in order to take paid work. After an initial disruption, informal remittance and networks were rapidly re-established. There was also a large return of national and international migrant workers who brought cash with them.

Under the Livelihoods Support Cash Grant (LSCG), the World Bank provided a Rs 3000 (US\$ 50) monthly cash transfer to the 250,000 most vulnerable households for six months. The Food Support Program continued, although relief and recovery programs were not given, given the number of NGO programs in place. On a longer term basis, during the following winter, agricultural inputs were provided and while 85% of displaced people had already returned to the villages, Oxfam observed that only 17% had even begun to rebuild their homes. The LSCG was extended for six months. House reconstruction was slow, partly because a large number of the affected had been tenants. Under the ERRA's livelihood project, only 7 out of 26 projects had begun. Less than two years after the earthquake, international agencies withdrew their expatriate staff because of the deteriorating security situation.

The LSCG became popular and continued – giving weight to the argument that crises can provide the political opportunity for the introduction or expansion of social protection programs. There is little evaluation of the impact of various programs – such as to how markets functioned following the quake, particularly meeting the demand for particular assets such as seeds and livestock; whether the agricultural training was effective; and the wellbeing of women under the different schemes. Some activities were criticized for being gender biased, for example encouraging women in sewing and embroidery rather than other opportunities, including agriculture.

AI.4 Indonesia: Tsunami, December 2004

Prior to the Tsunami on 26th December, 2004, Aceh province of Indonesia had a population of four million across 57,400 km² area. Production of oil and natural gas accounted for 40% of Aceh's Gross Regional Product, while agriculture contributed 32%, although 47% of employment. While its oil and gas resources made it one of the richest provinces in Indonesia it was also one of the poorest. Its growth was lagging and manufactures were in decline due to conflict and under-investment, poor infrastructure and market access and a lack of diversification of economic activity. Even prior to the Tsunami, poverty was widespread, with an estimated 28.5% (1.2 million people) below the poverty line. Since 2002, the Department of Social Welfare has run KUBE, a social fund program which targeted 40% of the population, although operations were restricted because of a shortage of community volunteers on which it was dependent. Some areas of Aceh also had access to the community-funded Kecamatan Development Program.

The Tsunami on December 26th, 2004 left 4% of the population of Aceh dead (130,736 people) or missing (36,804 people) and 504,518 people (13%) displaced. On the West coast, over one quarter (64,644) of farmers was dead or missing. The young and old were disproportionately affected, with women affected in a ratio of 3:2, compared with men. The cost of damage assets across multiple sectors (social, productive, infrastructure and others) was US\$2.9 billion. 15% of homes were destroyed and 60,000ha of agricultural land were affected. Fishing was the worst affected industry, 300,000 lost their entire income resources, with damage or the loss of two thirds of boats, over one quarter of ports, harbors and landing sites rendered inoperable and the aquaculture along the coast on which much of the fishing depends permanently destroyed or damaged – a loss of \$400million. The economic loss of the Tsunami was estimated at \$1.5 billion, equivalent to 32% of GRP.

Despite the security situation inhibiting the response of international agencies, safety nets were instituted quite rapidly in the form of cash-for-work activities, clearing debris. A back-to-school program was launched in January – it was patchy at first but recovered well, with 83% enrollment across all ages.. WFP provided 629,314 people with monthly food rations and a UNDP program provided 16,000 people with livelihood support. The Uang Lauk Pauk was a relief cash allowance for the three months following the Tsunami. Just as the president had declared the relief phase over on March 4th, the medium-term recovery and reconstruction operations were hampered by a huge earthquake off Nias in March 2005, which disrupted the livelihoods of 90% of the population. An estimated 80,000-110,000 houses needed to be rebuilt, but by November, on 16,205 had been completed with another 13,225 in progress. The KDP was extended to the whole province on Aceh and Nias Conflict continued to hamper the recovery process and only in August was a ceasefire signed. By January a minority of the population still needed assistance, the livelihoods support program had increased up to 44,000.

As the recovery phase took pace, daily wages overtook agricultural wages as the primary source of income, although humanitarian aid remained one of the top five sources of income, alongside trade and services. Some quarters criticized food aid for the slow recovery of agriculture. There were cases of corruption, conflict over land ownership, problems with contractors. Despite these delays, by November 2006, 26% of the population was below the poverty line, versus 28.5% prior to the Tsunami. Inflation was down to 8.1% from 41% in October 2005. Yet following needs reassessments, requirements for support rose again – either due to exclusion during the first round or mis-assessment of the level of damage.

Observation of the Indonesia case showed that cash-for-work programs could not reach all the needy population, particularly female-headed households and other groups which are typically on the fringes of society – and who continued to experience extreme poverty. It points to the importance of targeting the particularly susceptible population groups in a crisis.

The Government was already operating a number of social safety nets, introduced following the 1997 financial crisis. These predominantly covered food subsidies, cash for work, educational scholarships, subsidized healthcare and a community social fund scheme. In the wake of the fuel price rises in 2005, further social transfers, particularly subsidies and the first national Direct Cash Transfer scheme (the Subsidi Langsung Tunai) were introduced. The SLT was retained and extended to 16 million people in 2006. The main post-Tsunami government transfer was Uang Lauk Pauk (ULP) which was a daily cash allowance of US\$0.32 (in 2005 value) provided for nine months from the recovery phase to half a million displaced people. Another Government allowance was the JADUP, a daily transfer of US\$3.25 per household although distribution was extremely intermittent. Other programs were non-government run cash-for-work programs, community funds, house reconstruction and land rights/titling activities.

AI.5 Niger: Drought and Food Crisis, 2005⁴⁴

Shocks, such as droughts, floods, pest attacks, health epidemics and economic shocks have been very common in Niger. Over the past 12 years, Niger has experienced three severe droughts, two of which were associated with food crises (1997-98 and 2004-05). In 2005, an estimated 2.4 million Nigeriens were affected by severe food shortages, with more than 800,000 of these classified as critically food insecure (USAID FEWSNET 2005). Although, the 2004-05 food crisis was not of the scale of the 1968-74 or 1983-84 famines, the gross mortality rate reached 1.5 deaths per 10,000 per day in certain regions, and the child mortality rate reached 4.1 deaths per 10,000 per day.

More than 50 percent of Niger's population is estimated to be chronically food insecure, with over 40 percent of the total population suffering from extreme chronic food insecurity (e.g. per capita caloric consumption of less than 1800 kcal/person/day). In addition to chronic food insecurity, much of Niger's population suffers from seasonal and transitory food insecurity evidenced by the annual hungry season (*soudure*) and the frequent shocks. These shocks not only have an immediate impact on households' food security, but can also have longer-term consequences and leave households in debt or without the necessary assets to guarantee a minimum level of production. In addition, food insecurity is aggravated by high incidences of rural poverty, which translate at the household level into low purchasing power, lack of access to food by vulnerable groups, rampant malnutrition, and poor access to health facilities.

Since the Sahelian famines of the 1970s, a variety of governmental and non-governmental institutions have been established to prepare for and respond to food crises in Niger. The Niger's Food Production Office (Office des Produits Vivriers du Niger - OPVN) was established in order to manage the purchase and sale of staple cereals (millet and sorghum) in the country. In 1998, the GoN created a new structure for managing food crises, the National Body for the Prevention and Management of Food Crises (Dispositif National de la Prevention et la Gestion des Crises Alimentaires, or DNP-GCA) with the objective to reduce food insecurity by ensuring better coordination among the various organizations. In addition, there are a number of non-governmental and international actors involved in the prevention of and response to food crises. These include non-governmental organization, such as Africare, Catholic Relief Services, CARE, and WVI; international bodies (WFP, FAO, UNICEF), regional structures (i.e., CILSS) and donors (ie, the European Union, USAID's Famine Early Warning Systems Network (FEWSNET).

Despite important efforts and available climatic, production, price and food security data, the national, regional and international early warning systems were not able to predict in an accurate and timely manner the magnitude, scope and location of the food crisis in 2005 which caught national policy-makers and the international community by surprise. In one sense, the major cause of the crisis was the extremely low level of household income, which leaves many households on the brink of serious malnutrition even in years of normal harvests and prices. The additional shocks in 2005 that tipped the balance from risk to reality of a food crisis were:

- losses in food production and incomes for those farmers whose late 2004 harvests were affected by drought and locusts; and
- a sharp rise in food prices in Niger as of March-April 2005, which reduced household access to food for all net purchasers.

In 2007, the GoN has developed a national contingency plan for food security and nutrition with the participation of a variety of governmental and non-governmental actors to improve the functioning of its emergency response interventions. The document outlines the strategies

⁴⁴ Based on Aker and del Ninno, 2008.

priorities (including early warning indicators, i.e., cereal deficit, food prices and severe malnutrition) for the Government and development partners in preventing and managing food crises in the country. The overall objective of the plan is to minimize the impact of food crises by ensuring households' access to staple foods and protecting their assets, mainly via the national security stock and emergency cash resources (i.e., general food distribution, FFW, CFW, subsidized sales, seed distributions). However, there is still lack of agreement regarding the relative effectiveness of safety net interventions in Niger.

Safety Net Interventions during the 2005 Food Crisis

In 2004/2005, the government response's to the food crisis, with support of non-governmental agencies and international organizations, consisted mainly of a range of emergency schemes:

- (i) Food aid for direct emergency distribution in three types of programs: vulnerable feeding programs; Food for Work (FFW) programs; and cereal banks. Vulnerable feeding programs during the crisis included (i) general distribution programs, which provided general rations to entire communities, regardless of gender, age or nutritional status; and (ii) therapeutic feeding programs, which involved providing intensive curative care for severely malnourished recipients, primarily children under 5. FFW programs during the crisis provided food aid (usually to all households in the community) in return for work on community-based infrastructure projects, such as demi-lunes in community pastures or farm-to-market roads. Finally, in some communities, food aid was provided to replenish the stocks of existing cereals banks, or new cereal banks were created (in addition to an initial stock);
- (ii) Sale of cereals at subsidized prices. The GoN sold approximately 40,000 MT of subsidized cereals in Niamey and other regions between February and June 2005 (WFP 2005b), with 12,750 MT sold in February-April 2005, and 30,000 MT sold between April-May 2005;
- (iii) Provision of "Cash-for-Work" (CFW) programs to raise the purchasing power of affected households in targeted areas and Seed Vouchers and Fairs (SVFs), in particularly food insecure areas. In the SVFs, participants were provided with vouchers (worth a specific amount) to purchase the seeds; seed sellers included farmers and/or traders in the area. The primary idea behind the SVFs was to mitigate the medium-term impact of the food crisis by providing households with seeds for the next harvest. However, rather than importing seeds, the seed fair sought to facilitate exchanges between buyers and sellers.

However, several problems hindering the effectiveness of the programs used were identified. First of all, the targeting mechanism is not accurate. There is only some indication at village level of the areas that are more affected by the drought. There is no provision for the selection of the households for the subsidized sale and food distribution. Secondly, the safety nets programs used are not implemented for a sufficient period of time to allow poor households affected by the crises to recover their initial level of consumption or assets. Lastly, improvements are also need in the monitoring and response mechanism and in the design and implementation of safety nets programs.

ANNEX II Targeting mechanisms: strengths and weaknesses

Table 10. Types of targeting: strengths and weaknesses

Targeting type	Recommended use	Strengths	Weaknesses
<p>Geographic targeting Identifying administrative units, economic areas or livelihood zones with a high concentration of affected people</p>	<p>The Initial basis for most targeting, which is then refined</p> <p>Use exclusively when</p> <ul style="list-style-type: none"> The majority of those in the area are affected Social/political/security conditions do not allow more refined targeting and there is a large population in need of assistance The costs of refined targeting outweigh the benefits 	<p>The most vulnerable areas to prioritize are identified</p> <p>Is a quick, inexpensive targeting method, if more detailed approaches are not possible</p> <p>Utilizes existing data and secondary data – which can be cost effective</p> <p>Can help the rich to recover quickly</p>	<p>Existing population estimates are often unreliable and can distort results about the population in need</p> <p>Requires cross-checking with primary data to optimize accuracy</p> <p>Susceptible to high inclusion errors, especially if used exclusively</p> <p>Could exclude the specific needs of the poor</p>
<p>Household/Individual targeting Selection of groups, households, or individuals considered to be the most vulnerable in the community</p>	<p>Use when there is a significant difference between those who require assistance and those who do not within a community</p> <p>It is useful if there if program implementers have in-depth knowledge and/or presence in the area</p> <p>Use during stable situations, when there can be regular monitoring and re-targeting exercises</p>	<p>Inclusion errors can be minimized</p> <p>Can be effective in meeting narrow, specific objectives, such as nutrition, or recovery</p>	<p>It can be difficult to distinguish between needy households in an emergency</p> <p>Transfers may be shared and therefore not meet targets and objectives</p> <p>It can lead to resentment from excluded groups and could even lead to conflict within the community</p>
<p>Administrative targeting Households or individuals are selected by those external to the community using observable indicators such as nutrition status</p>	<p>Useful for nutrition interventions, such as therapeutic and supplementary feeding</p> <p>Good for administering in institutional programs – such as school-feeding</p> <p>Helpful in conflict situations when an external decision-maker is required</p> <p>When the emphasis is on rapid delivery and community-based targeting</p>	<p>It can be unbiased and transparent</p> <p>Inclusion errors can be low</p>	<p>Administrative costs can be high</p> <p>Difficult to verify if there is a lack of or poor quality information</p> <p>Indicators selected may not accurately reflect vulnerability in the area, thereby leading to</p>

	cannot be established		exclusion errors Risk of elite capture and stigmatizing certain groups
<p>Community-based targeting The community selects households or individuals to participate in the program. Typically religious leaders and elders, local committees or local authorities are part of the selection team and they may develop criteria for eligibility on the program</p>	<p>Use in stable situations, when social structures have not been disrupted Use in longer term crisis situations – where it will continue for several months</p>	<p>In the long-term, it can have lower program costs Communities usually have a far better understanding of needs and vulnerability in their area It can help to empower the community and build capacity</p>	<p>High start-up costs: requires training, advocacy and time Requires diligent monitoring to ensure transparency and fairness It can be difficult to compare across communities, if different criteria are used</p>
<p>Self-targeting Individuals and/or households decide for themselves whether they will participate in the program – such as food/cash-for-work programs and subsidies</p>	<p>This is useful if community targeting would not be effective or might lead to conflict within the community It can be used when full rations for the entire community are no longer necessary Also when recovery and protecting livelihoods is the primary objective</p>	<p>If the project can capture all those that it wants within the criteria, there is a low risk of corruption or of selection bias Low administrative costs A transparent system</p>	<p>Substantial information is needed to know exactly how, where and with what to target people so that they self-select The program must be large enough to embrace everyone that wants to be included</p>

Source: Targeting in emergencies, WFP, 2006.

ANNEX III Summary of disaster risk management strategies

Table 11. Strategies and Arrangements of Social Risk Management

Arrangement Strategies	Informal	Market-based	Public
Risk Reduction			
	<ul style="list-style-type: none"> ▪ Less risky production ▪ Migration ▪ Proper feeding and weaning practices ▪ Engaging in hygiene and other disease preventing activities 	<ul style="list-style-type: none"> ▪ In-service training ▪ Financial market literacy ▪ Company-based and market-driven labor standards 	<ul style="list-style-type: none"> ▪ Good macroeconomic policies ▪ Pre-service training ▪ Labor market policies ▪ Labor standards ▪ Child labor reduction interventions ▪ Disability policies ▪ AIDS and other disease prevention
Risk Mitigation			
Portfolio	<ul style="list-style-type: none"> ▪ Multiple jobs ▪ Investment in human/physical/real assets ▪ Investment in social capital (rituals, reciprocal gift- giving) 	<ul style="list-style-type: none"> ▪ Investment in multiple financial assets ▪ Microfinance 	<ul style="list-style-type: none"> ▪ Pension systems ▪ Asset transfers ▪ Protection of poverty rights (especially for women) ▪ Support for extending financial markets to the poor
Insurance	<ul style="list-style-type: none"> ▪ Marriage/family ▪ Community arrangements ▪ Share tenancy ▪ Tied Labor 	<ul style="list-style-type: none"> ▪ Old-age annuities ▪ Disability, accident and other insurance (e.g. crop insurance) 	<ul style="list-style-type: none"> ▪ Mandated/provided insurance for unemployment, old age, disability, survivorship, sickness, etc.
Risk Coping			
	<ul style="list-style-type: none"> ▪ Selling of real assets ▪ Borrowing from neighbors ▪ Intra-community transfers/charity ▪ Sending children to work ▪ Dis-saving of human capital ▪ Seasonal/temporary migration 	<ul style="list-style-type: none"> ▪ Selling of financial assets ▪ Borrowing from banks 	<ul style="list-style-type: none"> ▪ Disaster relief ▪ Transfers/Social assistance ▪ Subsidies ▪ Public works

Source: Jørgenson & Holzmann, 2000.

ANNEX IV Profiles of safety nets for natural disasters, 2000-2008

A sample of safety nets and income support following recent disasters (by Government, donors, international organizations & NGOs)

Transfer Objective/target group	Transfer: Size	Transfer: Type	Transfer: Frequency	Transfer: Duration	Target Number
1990-2002, Afghanistan					
Encourage repatriation, UNHCR	\$100/person + 300kg wheat	Cash and food	One-off	One-time	3 million people
1998, Guatemala & Nicaragua, Hurricane Mitch					
Hurricane Mitch Agricultural support Program (Rehabilitation)	\$30 + package of seeds, fertilizer, grain, spray pumps	Cash grant + agricultural inputs	One-off	One-time. Cash given to women. Inputs to men	17,000 households
2000, Mozambique, floods					
'Rebuild lives' and 'jumpstart economic activity' for flood-affected rural families, USAID	\$92	Cash grant	One-off	One-time	106,000 households
2002, DRC					
Road & school rehabilitation	\$120		-	-	800 households
2003 Iran, Bam earthquake					
Welfare Organization (among other government cash transfer programs)	\$60		monthly	Six months	5,800 households
Encourage returnees, UNHCR (?)	\$10/person		One-off	One-time	
2003, Cambodia					
Encourage returnees	\$50/adult and \$25/child		One-off	One-time	370,000
2004, Serbia					
Home reconstruction	CHF 50		monthly		11,000 households
2004, Tsunami					
Affected households, UNDP	\$300 total/household	Cash for work		Six-eight months	46,000 households
2004-5 Tsunami, Sri Lanka⁴⁵					
Livelihood Support cash grants Vulnerable households, GoSL	US\$50	Cash grant	2 installments	Four months	200,000 families
Assistance package to tsunami-affected households	\$50/month followed by \$3.75 cash + food	Cash	Monthly	Two months Four months	880,000 households
Beneficiaries of WFP's Vulnerable Group Feeding in tsunami-affected districts in Sri Lanka, WFP	\$1.50/person, based on local market value of food	Cash transfer	Weekly	Four months	12,000 people (3,300 households) in 3 districts

⁴⁵ Exchange rate: US\$1: LKR 100

Education grants to tsunami-affected children, UNICEF	\$2.50-\$5	Cash grant	Monthly	Five years for each child	65 children
2004-5 Tsunami, Maldives⁴⁶					
Cash for affected Households	\$39, \$77 or \$115, depending on damage	Cash grant	Single payment	53,000 helped within one month	58,000people (20% pop)
2004-5 Tsunami, Aceh, Indonesia					
Kecamatan Development Program (KDP) – Social fund to decrease poverty, strengthen local govt. and local institutions, GoI	a) \$50,000-\$150,000 b) \$50/ household	Community grants	Single payment		
Tsunami-affected separated and orphaned children, UNICEF	\$44/child to caregiver	Cash grant	Monthly	Three months	1,300 caregivers (1,700 children)
Rebuilding houses	Destroyed: \$703 Damaged: \$469/Hh	Cash grant Cash grant	Single payment Single payment		
Grants to restart livelihoods, Oxfam	\$500/household (approx) + seeds, fertilizers, machinery + rehabilitation of contaminated land	Cash	Single payment		6,000 households
Purchase of non-staple foods to supplement food relief for Tsunami-affected households	Rph 3,000 per day (\$10 per month)	Cash allowance	Rations		
Support to hosts of 2 or more IDPs in 11 sub-districts in Aceh, SDC	\$98	Cash	Single payment		7,239 host families
1) Tsunami-affected households – for assets, education and services, 2) Livelihoods cash grant for particularly vulnerable people, including women, single-headed households, elderly and disabled; 3) Group grants to bring people together to jointly invest in assets such as a fishing boat or to fencing for agricultural land. British Red Cross	1) \$1000/household 2) 3)	Cash	Four tranches		1) 6,900 households 2) 3,000 people 3) 150 groups of up to 120 people each
2004-5 Tsunami, Somalia					
Meet basic needs of the poorest and most destitute	\$50(based on cost of food, sugar, oil & water for humans/livestock)		monthly		13,730 households
2005 Pakistan, Earthquake⁴⁷					
Housing support	Destroyed: US\$2,917 Damaged: US\$1,250	Cash grant Cash grant	4 tranches Single payment	As verified One- time payment	600,000 households
Death & injury compensation	Death: US\$1,667/member	Cash grant	Single payment	One- time	

⁴⁶ Exchange rage: US\$1: Rf 13

⁴⁷ Exchange rate: US\$1:Rs 60

	Injury: US\$250-1,250	Cash grant	Single payment	One- time	
Livelihood Support Cash Grant – to support livelihoods and immediate needs for the most vulnerable, GoP.	US\$50	Cash grant	Monthly	Six months	250,000 households
Support affected livelihoods, Save the Children	\$190	Cash grant	One-time	One-time	5,100 households
Recovery of small businesses, Save	Up to \$380 per business	Cash grant	One-off payment	One- time	375 village shops
2005, Kenya Isiolo drought					
Destocking/Restocking, invest in productive assets, Save	\$435/Household	Cash transfer	One-off	One-off	750 households
2005,2006 Malawi, Erratic rains					
Food and Cash Transfers project to assist households who had not received food assistance during the crisis – 3 regions, Concern	Food rations + cash transfers	Cash and food	Monthly	Four months	5,050 households
2005 Food crisis, Niger					
Meet immediate needs, avoid coping strategies, restock herds, IFRC	\$240/household (40 days' ration)	Cash	One-time payment	One-time	5,713 households
Disaster risk reduction: reduce chronic vulnerability pre-shock. Installments preferred over smaller regular transfers to enable investment & spread risk. CARE	\$178	Cash	Two installments		
2005 Hurricane Katrina, United States					
1. Immediate needs for survivors	1. \$2,000				
2. Temporary housing, property repair/replacement	2. Up to \$26,200				
2005 onwards, Consumption support and asset protection, Ethiopia					
Productive Safety Net Program	\$4.4/person/month or 15kg/person/month	Cash for work Food for work	Every two months	Six-eight months/year	7.6 million people
2006 Drought, Somalia					
Humanitarian response	\$50/household \$55/household	Cash grant Cash-for-work	One-off Monthly	One-off Four months	16,158 households 9,298 households
2007-8, Swaziland, Drought					
Emergency Drought Transfer Drought-affected households – Consumption protection and livelihood support, Save UK	\$70 one-off (livelihoods) Half food requirement in food + half (approx \$4.5) in cash transfers	Cash and food	One-off + food + cash	Six months	7,500 households
2007-8, Returnee households, DRC					
Voucher fairs for returning households to purchase non-food items at local markets and fairs. UNICEF & CRS	Cash and vouchers	Cash and vouchers	One-off	Six months	740 households

ANNEX V Some guidance for implementing social safety nets ex ante

In summary, the adequacy of response depends upon: a) prepared response plans; b) effective early warning systems; and c) the capacity to implement the plans.

A number of important lessons about *ex ante* decision-making were drawn from the Bangladesh and Ethiopia case studies and is summarized below. See section 4.3 for more details and questions to consider.

General

1. Establishing effective safety nets requires a long-term commitment
2. Safety nets must be scalable, to cope with future shocks.
3. Shocks affect different socioeconomic and livelihood groups differently. There is a need to better understand these nuances in order to adapt programs to better meet the variations in need of different groups of people.
4. Protective safety nets complement a preventive approach, including construction standards, regulations and policy structure. Safety nets operate best in tandem with other complementary activities and policies, so consider what other risk mitigation measures are needed.

Planning

5. A national emergency plan is necessary in order to respond to shocks throughout the country.
6. Poorly planned safety nets can lead to additional risks for participants. It is necessary to consider and mitigate other issues that may arise as a consequence of participating in a safety net such as increases in private debt or school dropout rates.
7. The EWS must trigger a clear course of action in the disaster mitigation strategy including scaling up safety nets and activating other mitigating mechanisms.
8. Awareness of where internal political dimensions may impede progress needs to be anticipated in program design and areas of responsibility and accountability need to be clearly defined.
9. Early warning systems must be responsive to various types of shocks and different levels of vulnerability.

Implementation

10. Monitoring and regularly updating information is vital in order to effectively plan and achieve program objectives.
11. Establish reliable funding sources so that there is less dependency on reactive and unreliable emergency appeals. A multilateral mechanism similar to the Global Facility for Disaster Risk and Recovery (GFDRR), which predominantly focuses on infrastructure and coordination projects, might be worth exploring for safety net and social protection responses to natural hazards.
12. Ensure that procedures of both donors and implementing agents can be modified and simplified in the event of a crisis to speed up response times.
13. In many cases, national food reserves will still be required in case of emergency needs.
14. Confidence in the SSN response assessments is required so as not to double efforts or prevent effective coordination between stakeholders.

ANNEX VI Lessons learned: Contextual issues

I Defining the narrative

- Reassess the prevailing narrative of the situation and consider the alternative options for safety nets that this uncovers. This requires triangulation of information: recipients' preferences, market analysis and needs assessments.
- Consider the motivations for choosing a particular type of transfer and if other types are preferred and better suited, whether donors and governments will provide these.
- Prioritize local knowledge and consult the community on all aspects of safety net design
- Be cognizant of other sources of risk that may be affecting the community and either respond to or beware exacerbating these issues in the safety net design.

II The importance of full information

- Without an excellent grasp of the operational conditions of the situation, the design may fudge issues, be mis-targeted, etc.
- In reality time pressured assessment will be flawed and interventions will have to be modified as better information becomes available – so provision for periodic reassessments of recovery and reconstruction operations is desirable

III The political and institutional context

- Political unrest in particular can upset donor commitments and program implementation from external organizations
- First consider all available safety nets and pre-existent distribution systems, before instituting a new system. Also assess whether any local networks and community systems that can assist with program implementation
- Develop sensitivity for the political and administrative dynamics in working horizontally and vertically with government departments in order to anticipate and help resolve bottlenecks.
- Comprehend the nature of relations between the administrative or delivery system and participants (as well as non-participants) in order to avoid exacerbating existing tensions.

IV The economic context

- The health of local markets is a strong factor in determining the most optimum type of transfer to provide. The vitality of markets during different seasons must be considered: some markets may not be accessible at certain times of the year
- Both a short and medium-term plan should be looking to facilitate the recovery of markets and combined with the rehabilitation of infrastructure and supply-side initiatives, cash transfers to disaster-affected areas can be a demand-side means to help do so.
- When markets are not operating due to supply constraints or are inaccessible, either physically or in entitlement terms, in-kind transfers may well be the optimum response. Contrarily, cash transfers may be helpful in stimulating the supply side.
- Volatile markets affects the purchasing power of cash transfers – either transfers need to keep pace with inflation, or in-kind transfers may be a preferable alternative during periods of extreme fluctuation.
- However, the possible consequences on local markets of a policy: be it a transfer, a subsidy or a freeze on prices need to be thoroughly considered
- Public works schemes can be appropriate in the medium term if there is minimal access to employment, but when there is a long-term need to create employment, it flags the need for other mechanisms to resolve labor market issues.

- If there is a need for an employment generation scheme, it is important that it address other needs in the community, such as environmental rehabilitation or building community assets, not the notoriously futile ‘hole-filling’ that has been commonplace in the past.
- There is no blueprint for the size of transfer to give in particular situations. The size of transfers is not necessarily reflective of a country’s income level, or the level of transfers it had been giving prior to a large covariant shock. Yet seemingly adequate (large?) transfers can lead to a successful recovery process - as in the Maldives – or not, as in Somalia. Large transfers can lead to incentives for corruption.
- Perhaps more important, is the size of a transfer relative to context-specific reference points.

V The social context

- Consider who the target group is and what types of needs they have, and obstacles for them to overcome. For example, orphans and disabled people will require interventions within their own community and as a last resort, institutionalization; food/cash-for-training and other capacity building initiatives may be more appropriate responses for women than labor-intensive public works.
- Particularly in conflict situations and complex emergencies, women and children are the most affected: up to eighty percent of IDPs and refugees are women and children (WFP, 2006). This of course influences upon targeting decisions and the type of program that is appropriate.
- Distribution of transfers have to be accessible for all, including women and elderly
- Decisions about where and how to deliver transfers need to be taken in conjunction with the program recipients.
- It is necessary to take an integrated view of the complete recovery process from relief/immediate to long term (Kennedy et al, 2007, 28)
- Establishing community-based activities has important value for restoring what may be damaged social capital and dislocated communities. “Addressing settlement and community issues throughout [the process] is as important as providing physical structures and addressing individuals’ needs”(Kennedy et al, 2007, 28).
- *Blanket coverage may ensure that the wealthier recover more quickly, which may be advantageous for the economy, in stimulating businesses and providing employment, although, this cannot be to the exclusion of the poorest and most vulnerable.*
- Community-targeted funds may be useful for reconstruction and rehabilitation of community and private assets (road repair and reconstruction of fishing-boats and houses). This is one way to implement locally-adapted work programs. In the case of private assets, the community can decide which groups of people they preferred to assist first. This is of course time-costly and requires considerable training and awareness-raising within the community, hence only suitable for longer-term or frequently recurrent safety nets.
- Universal targeting of the affected population, versus targeting only the poorest affected need not be a trade-off, but depends upon the program objective. Different wealth levels can be targeted for assistance through multi-tiered programs, in order to help restore all livelihoods and maintain the local economy.

VI Safety net design

- Focus sufficient resources on monitoring, evaluation and a transparent appeals system.
- Capacity is of critical importance but can take time to build – this is not suite for emergency situations, but highlights the importance of training , capacity-building in planning, implementation and disaster risk management.
- The choice of intervention instrument should be based on a pragmatic assessment of *local*

circumstances and not on preconceptions of what works best.

- Try to avoid multiple, parallel interventions, including financial institutions.
- Assign departmental responsibilities - who is responsible for what (such as targeting, distribution, etc.) and how these tasks will be carried out;
- Establish where timely resources will be mobilized from;
- Predetermine the overarching objective. The specific objectives will need to be refined at the time;
- Pre-identify what the unknown information is and plan for who and how they will be addressed;
- Establish a time plan of when different actions will be taken. As the Bangladesh case demonstrated some post-relief actions can and may need to start during the relief stage, or even before a predicted event;
- Coordinate: between government departments and particularly of local and international NGOs and other outside interventions;
- Establish a monitoring and evaluation system.

VII Livelihood support

- In order to be effective, the most appropriate response for rehabilitating livelihoods, must be weighed against the various logistical and implementation constraints.
- Assess the need and scope for changes to the type of transfer provided (e.g., a shift from food transfers to cash, from frequent to more intermittent payments, etc.)
- If established livelihood opportunities are limited, consider promoting alternative types of livelihood within the community – such as small businesses and household production.
- Focus on using the community to recover assets and livelihoods: this can have positive impacts upon psychological wellbeing after a trauma and on building back social capacity.
- Livelihood approaches should be used to complement other safety net transfer programs

ANNEX VII Summary of safety net design issues

Planning safety nets for emergencies

Box 5. Planning safety nets for emergencies: A summary

Some guiding principles
<ul style="list-style-type: none"> • Establish a national emergency plan that can respond to shocks throughout the country at a national or local level, this takes time and should be seen as a long term commitment; Institutionalize emergency plans and safety nets in legal and policy structure • Safety nets must be scalable, to cope with future shocks. • There must be access to reliable sources of funding • Funding and procurement processes must be modified in the event of crisis
Early warning systems
<ul style="list-style-type: none"> • Ensure EWS are responsive to different types of shocks, for varying levels of vulnerable citizens. • An EWS must trigger a clear, timely course of action
Capacity to implement plants
<ul style="list-style-type: none"> • Be conscious of the internal political relations which may impede progress. • Monitoring and other data must be regularly updated • Safety nets can only be implemented as one part of a disaster management strategy.

Understanding the context: How context informs and influences safety net design

Box 6. Understanding the context: How the context informs and influences safety net design

Contextual Issue	Safety net design feature
7. Defining the narrative & determining the type of natural event (slow/rapid onset)	Framing objectives and goals; deciding transfer type; duration of assistance
8. Defining the narrative & knowledge of the demographics	Type of transfer
9. Geographic & demographic spread of event	Targeting
10. Socio/politico/economic circumstances	Assistance, targeting, delivery
11. Infrastructure & human capacity	Implementation & delivery
12. Resource availability & international context	Size, type & duration

Design and implementation

A good safety net program should be: **appropriate** and well –balanced with the country’s other policies; coverage should be **adequate** to include those most in need; it should be fair and **equitable**; it should maximize the benefit to the target group by being **cost-effective**; if it is **incentive compatible**, it will encourage positive changes in household behavior; it should be fiscally and politically **sustainable**; and **dynamic**, in that it evolves over time. These are useful

guiding principles although in designing short run safety nets in an emergency, some of these characteristics may be relaxed (Grosh et al, 2008).

- Capitalize on existing effective mechanisms as much as possible
- Consider how safety net activities will need to transition from the short to long term.
- It will require contingency plans to scale-up existing mechanisms in the event of disaster and plans to deal with the ways that existing mechanisms might become disrupted.

Deciding the implementing agent

Box 7. Safety net design: How to decide the implementing agent

Understanding the context: How the context informs and influences safety net design
<ul style="list-style-type: none"> ▪ Be cognizant of government commitment to the program – particularly at the various levels of within the civil service. How committed to the program are different levels of government? How close is the program to the treasury/senior ministries? ▪ Be aware of the tensions between different departments involved and seek ways to mitigate these tensions ▪ Conduct an institutional analysis to (i) understand the institutional history; and (ii) evaluate capacity ▪ Which departments have sufficient human resources to manage the program and how can the skills of other departments be utilized? ▪ How can coordination and communication be fostered between government departments and other implementing agents ▪ How can the community contribute to knowledge and management of the safety net at the local level? Consider how to involve the community and make use of their knowledge and social capital, in as diverse ways as possible in the program design and implementation. ▪ Are there tensions and competition between the government and communities and government with donor/technical assistance that can be assuaged ▪ Is there an ongoing training program for implementers– including sharing best-practices, field visits for central-level staff and coordination meetings? (In Somalia, implementing organizations were required to attend a 2-3 day training every 6-7 weeks, to discuss problems and share experiences (Majiid, 2007).

Choosing the type of instrument: Cash, kind or vouchers?

The choice for a type/types of transfer will require triangulating recipients' preferences, the economic appropriateness and the practical reality of implementing a particular transfer.

Box 8. Safety net design: How to select the transfer

Some guiding principles
<ul style="list-style-type: none"> ▪ Cash transfers need to be mainstreamed in disaster preparedness systems as in-kind transfers still tend to be the norm during emergencies. ▪ The choice between transfers, need not be rigid – recipient surveys suggest that a mixed basket may be preferred and most useful. ▪ Consider the program's objectives and which type of transfer will best achieve this. Is it better to use/improve existing safety nets transfer systems or implement a new one. ▪ Assess the household preferences for different transfers, including variation in preferences across the target group, and why; and how they will best use the transfers to increase their resilience to future natural shocks

<ul style="list-style-type: none"> ▪ Balance preferences with a thorough knowledge of local markets – including supply, access (throughout the year), market stability, price fluctuation, etc. ▪ Establish the transfer type will best protect against future natural disasters – are there standards to maintain, local resources to protect, etc. which promotes a particular transfer? ▪ Evaluate the capacity to deliver the desired transfer and how this can be improved, including how the community can be involved in the delivery of transfers. ▪ Determine the risks of providing a particular transfer and how they will be overcome. ▪ Program flexibility is necessary to be able to adapt the program as the situation changes – will transfers ▪ Is there any conflict in the area that may be exacerbated by a particular type of transfer? ▪ Are the risks of corruption, extortion, patronage and elite capture greater if cash (rather than in-kind) transfers are provided? ▪ Are there genuine concerns that if cash is provided, it will not be spent on goods that will meet the program’s objectives (e.g. house-construction, food and basic needs, livestock re-stocking or target groups such as children, etc.).
Economic issues
<ul style="list-style-type: none"> ▪ Will a particular type of transfer help stimulate local markets? ▪ Is there sufficient cash in circulation and are markets well-stocked? ▪ Are prices steady? ▪ Who will bear the cost of price fluctuation (recipient or provider)? ▪ Will the transfer impact upon local/national prices? ▪ Are markets accessible, including by the poorest? (i) Physically; and (ii) In term of purchasing power ▪ Regularly monitor markets, recipient preferences, and impacts (on participants and non-participants) to observe any changes ▪ What is the speed with which assets need to be replenished: will providing cash transfers take too long to re-build a local market in the asset? ▪ Will markets continue to be accessible, throughout the duration of the program, even during seasonal changes?
Questions about the target group
<ul style="list-style-type: none"> ▪ Which transfer will provide the most flexibility for recipients and maximize household choice? ▪ How can this be achieved, while still meeting program objectives? ▪ Have recipients been adequately consulted about their preferences and the costs to them of a transfer? ▪ Which type of transfer will incur the least cost for recipients? (i) in time costs and (ii) financial costs (e.g. due to transport, childcare, etc.) ▪ Are there any disincentives (e.g. production disincentives) to providing cash or in kind transfers?
Implementation and resource issues
<ul style="list-style-type: none"> ▪ Which transfer is the most efficient to distribute – in both the short and long term? ▪ Which transfer will minimized discrimination, political manipulation, fraud, diversion, adverse incentives and moral hazard? Is some level of diversion acceptable and even beneficial? ▪ Can the transfer help safeguard against future natural disasters, for example, by ensuring standards are maintained ▪ What is cost effective for and the preferences and donor and/or government? This will inevitably be a consideration.
Public works/workfare and other conditional transfers
The primary purpose of public works schemes is to provide short-term employment

opportunities in circumstances where there are few.

- Is there a lack of (unskilled labor) employment opportunities for households – either in the aftermath of, or to protect against a natural hazard?
- Can the workfare activities build skills and assets to help prevent natural disasters?
- Is there a need to help clear up after a disaster, to restore infrastructure and repair/rebuild houses?
- Will the public works distract from other livelihood opportunities?
- Do any particularly vulnerable groups need direct (unconditional) support?
- Can some vulnerable groups contribute to non-labor intensive community activities?
- Is there any need to make transfers conditional on participation in other programs, such as health, or registration activities?

Targeting

The importance of targeting is to maximize the benefits for those in need of support and to minimize wastage and program costs. This is particularly difficult when there is an imperative to act quickly and this makes it even more important not to overlook the balance between non-partisanship, local knowledge and pragmatism. Achieving perfect targeting has to be offset by the costs of carrying out extensive targeting exercises. The very concept of targeting risks being seen as a top-down exercise, and the agency of affected communities must be explicitly recognized in program design.

Box 9. Safety net design: Targeting - Who, how and what

Who to target An effective emergency/rapid needs assessment (ENA/RNA). Rapid assessment of the situation is an imperative, followed by continuous and rigorous tracking of the situation. This will help advance response times to hazards.

- What are the program objectives? Short-term to meet basic needs, or longer-term to rehabilitate livelihoods?
- What information sources will be drawn upon (e.g. FEWSNET, Vulnerability Analysis Mapping, local organizations, informal church networks, etc.) – that can help establish geographic target areas, or be used to cross-check targeting?
- Conduct an effective emergency/rapid needs assessment (ENA/RNA).
- Are the most vulnerable included – are they even visible to implementers?
- Is there a need and resources to include the less vulnerable?
- In post disaster situations, targeted groups usually are (i) those that have lost household labor, (ii) those that have lost assets; (iii) those that are most destitute.
- Are there various safety nets that can cater for differently affected groups, for various lengths of time?
- Can the safety net be multi-tiered to target different wealth groups?
- Beyond the core target group, who else will the safety net also assist?
- Is universal targeting appropriate or necessary in the immediate to short-term? How this will be refined in the medium term, as the support moves from relief to recovering and rebuilding livelihoods, needs to be carefully planned.

Especially vulnerable groups and the community These groups include the disabled, sick, elderly, orphans and other vulnerable children and women headed households. Particularly after a severe shock in particular, it may include psychologically traumatized people.

- Is there a good understanding about the different types of vulnerable groups in the targeted area?
- Is the safety net sufficiently flexible to meet their needs, is the safety net accessible for them?

<ul style="list-style-type: none"> ▪ Does the monitoring and evaluation system adequately include different vulnerable groups? ▪ Will vulnerable groups receive direct support? Can they contribute to community activities in any way (if the program involves workfare)? ▪ Can the safety net help empower vulnerable groups (e.g. giving transfers to women)? Will there be any adverse effects of this? ▪ How can the community be given ownership over their relief and recovery strategies?
<p>How to target: Timing and re-targeting</p> <p>Targeting processes will alter according to whether the situation is a slow-onset disaster, or an unexpected event.</p> <ul style="list-style-type: none"> ▪ Following a rapid-onset event targeting is likely to be particularly difficult in the initial stages, due to the loss of trained human capacity, damaged infrastructure, and destroyed records and data. ▪ How will the targeting process adapt as post-emergency recovery progresses from the short to longer term, as needs and target groups change? Are the geographic areas still appropriate? ▪ What is the plan and frequency for re-targeting? ▪ Are the targeting criteria still valid – do they need to be adapted to local conditions as the situation changes? ▪ What is the goal for improving targeting over time (for longer run programs)? ▪ What are the sources of information for targeting. Are they sufficient and are they being monitored over time? ▪ If targeting with migrants and IDPs, are the local population still protected? ▪ Utilize all available sources of information: vulnerability assessments, EWS reports, local organizations and networks (such as church networks) in order to develop targeting criteria; ▪ Cross-check information once selection criteria has been agreed (through field visits and house-to-house surveys).
<p>What to target</p> <p>Deciding the targeting method will be a balance between cost, efficiency and effectiveness. In a disaster situation, the simplest targeting mechanisms are those which do not require a verification process. self-targeting mechanisms and universal coverage of the affected population. The advantages and disadvantages of various targeting mechanisms as they apply to hazard situations are summarized in the Annex.</p>
<p>Targeting errors:</p> <ul style="list-style-type: none"> ▪ What level of inclusion and exclusion errors will be tolerated ▪ Three options to help <i>alleviate</i> inclusion errors are: <ul style="list-style-type: none"> (iv) Factoring this in to calculations of need and increasing transfers accordingly; (v) Minimize possible leakage in the program design. For example targeting children through school-feeding, mothers and babies at health centers and the sick/injured in hospitals; (vi) Thorough monitoring, frequent re-targeting and an effective, trusted appeals system.
<p>Designing the targeting process</p> <ul style="list-style-type: none"> ▪ What ongoing targeting assessments are planned? ▪ What pre-existing safety nets and data mechanisms are there that can help with the targeting? ▪ Where, how and when will participants be identified most easily? ▪ How will the verification process be strengthened over time? ▪ What is the capacity of the targeting institutions, does this need to be improved?

- How can the community be involved at all levels of the targeting process?
- Are community expectations being managed?
- When will re-targeting take place? And at what intervals thereafter?
- Is the targeting process transparent? Are possible loopholes for corruption avoided?
- What will be the costs of targeting – for the implementing structure and for potential participants
- Strike a balance between inclusion and exclusion errors. Consider how to improve upon the relief-phase targeting processes where inclusion errors may be more acceptable;
- Plan targeting decisions assuming full resources are available, but prepare to adapt if resources are reduced or delayed and communicate this to stakeholders;
- Ensure targeting is “a conscious and integral management activity at all stages of the program cycle” and that targeting is informed by critical situation analysis;
- Budget the costs of targeting, including training, registration, monitoring and community sensitization;
- Plan flexible targeting, that can respond to changes in situations, household composition, vulnerability
- Develop a dissemination plan of the targeting criteria and mechanism, once it has been clearly defined;
- Design a monitoring mechanism, plan re-targeting exercises and a data-collection system.

The costs of targeting

- Initial, administrative costs
- Recurring costs
- Implicit costs
- Incentive costs
- Political costs
- Beneficiary opportunity (‘transaction’) costs

Payment

There is considerable variation in the size of transfers offered following different natural disasters but no standard proportion of assistance, and little literature calibrating the impacts of different levels of transfer. **All decisions must be specific to the country and circumstances.**

Box 10. Safety net design: Making payments – how much, how often and where

Quantity

- At what level of payment will it be possible to maintain a balance between entrance and exit incentives?
- At what size of transfer will the payment meet the program objective?
- Is the payment in line with market prices, local labor wages, etc? Does this also account for fluctuation?
- Are the households needs sufficiently being met? Will the size and frequency of transfer sufficiently decrease their vulnerability?
- What other complimentary activities are required (linkages)?
- Does the size of transfer accommodate seasonal variation, post-disaster fluctuation and (possible) volatile prices?
- Is the size of transfer sufficiently adequate to yield the intended results?
- Will the size of transfer provide too great incentive for double dipping and create adverse effects?
- What are the other household expenses, including debt repayments and business costs? Are objectives (and the subsequent size of transfer) are in line with household spending

<p>priorities?</p> <ul style="list-style-type: none"> ▪ For cash grants, is payment for consumption or payment? ▪ Will cash wages upset the local labor market? ▪ Food rations tend to meet the standard food basket for emergency assistance, of 2100kcal/day. ▪ Will there be any problems if the transfer size fluctuates – eg between crisis and non-shock times?
<p>Frequency, timing and duration “The principles of <i>stability, predictability, and timing</i> of an intervention may be as critical to social protection intervention effectiveness as the resource transfer itself” (Maxwell et al, 2008, 5). Predictable, stable transfers are essential to help recipients assess their willingness to take risks, which will help reduce their vulnerability to future or impacts of current shocks. Yet there seems to be little or no consensus as to the ideal timing and frequency of transfers, which reflects the heterogeneity of households’ preferences. Deciding the timing and the frequency can only partially influence how households are spend their transfers.</p>
<ul style="list-style-type: none"> ▪ Recipient preferences tend towards larger, infrequent transfers. ▪ To meet basic needs objectives and immediate needs, transfers tend to be frequent and small ▪ For livelihood recovery, or compensation and insurance mechanisms, grants in the immediate aftermath of natural disaster are more likely to be a one-off payment. ▪ Payments before/during the hungry season are most likely to be used for consumption and to arrest the need to accumulate debt, larger payments can be more easily used for purchasing livestock when prices are low. Payments after the harvest are more likely to be used for repaying debts. ▪ One-time payments are for ‘one-off’ or start-up aims for example to encourage repatriation, replace lost assets and meet emergency needs ▪ Evidence suggests that one to two installments can help spread risk, whereas small installments discourages investment. ▪ Lumpy payments are for larger investments that take place over time or payments that need monitoring for example, providing cash to rebuild homes in installments. ▪ For safety nets ex ante, transfers are likely to be regular in order to support and protect livelihoods in the event of a natural hazard. ▪ Assess the impact on livelihoods. ▪ In the short run, delivery frequency also depends on institutional capacity to distribute transfers.
<p>Delivery Deciding upon where to deliver transfers involves a trade-off at some level between convenience for the recipients and costs for the implementers.</p>
<ul style="list-style-type: none"> ▪ What are the different options for delivering cash to people? ▪ What are the opportunity costs for recipients of a particular delivery point? ▪ What are the costs to the administration of a particular delivery point? ▪ Is the payment point a convenient place for recipients to converge? ▪ Are banking systems or financial transfer mechanisms functioning? ▪ Are there any security issues with the collection point, such as cash being seized or do people feel insecure? ▪ Will the paypoint provide access to other resources and services? ▪ Can the paypoint help stimulate the local rural economy and rural markets? ▪ Try to maintain equity in delivery. Recipients that spend more of their income on collecting the payment than others, retain proportionately less to meet for example, consumption needs. ▪ Will the distribution of transfers marginalize any groups, or reinforce social disparities? Is

<p>it appropriate to confront these norms at this time?</p> <ul style="list-style-type: none"> ▪ What are the costs of collecting the payment (including distance) for different target groups? ▪ Keep the mechanism simple. Simple solutions may be more effective than high-tech ones.
<p>TimingThe speed at which a safety net program can be launched depends upon how prepared the country is, i.e. whether they have an established safety net in place already, the accuracy in assessing the size of the problem as well as practical aspects such as capacity, banking system, size of country, extent to which infrastructure has been damaged, etc.. Save the Children (2008) and the World Bank (2007) both estimate that a new safety net takes at least four to six months to establish. Again, this section considers a few guiding principles for ensuring timeliness in delivery of transfers:</p>
<ul style="list-style-type: none"> ▪ In theory, cash should be the quickest resource to transfer to localities and distribute. ▪ Consider how to change the modus operandi. Cash transfers are not always suitable and may not necessarily meet the required needs. However when designing safety nets ex ante, these issues should not detract from challenging the status quo of in kind transfers. ▪ Safety nets ex ante are important in order to allow space for testing and improving delivery, before being confronted with a major shock. ▪ Think creatively about how to ensure timeliness. What are the other available resources that can be drawn upon? ▪ This relies on thorough knowledge of the affected area, the size, differing environments, capacities and needs and a good grasp of local and informal transfer systems. When implementing ex ante safety nets, challenge the way ‘business has been done’ and reflect on any systemic changes that could improve upon the conventional methods for delivering assistance.

Institutional management and coordination

“Coordination, not competition or confrontation, is necessary among organizations to ensure even coverage of beneficiaries, uniformity in the packages provided and consistency in meeting local and national building codes, as well as international standards.” (Kennedy et al, 2007, 31). A useful analogy is to think of “risk layers”. Each layer needs to be identified and an appropriate government role assigned to manage each one to ensure that there is no overlap or contradictions in programming. (Skees et al, 2005).

Box 11. Safety net design: Institutional management and coordination

<p>Institutional management and coordination</p> <ul style="list-style-type: none"> ▪ Are all pre-existing bureaucratic structures and lines of communication being used, where feasible?. ▪ Is the political struggle between departments being minimized, or at very least understood? ▪ Is the coordination and institutional set-up helping maintain confidence in the recovery and rehabilitation process? ▪ Is it necessary to institute a specific agency to plan, coordinate and administer the reconstruction work? ▪ Are all stakeholders being coordinated so as to avoid duplication of efforts? ▪ Is there sufficient focus on communicating with the community and government administration in localities? How will you ensure that communication in all direction is effective? ▪ Focus on ‘Getting it right first time’ ▪ Can the disaster management approach be grounded in the policy and legal framework?

- Is it necessary to formally embed rehabilitation agencies in the legal code?

Monitoring and evaluation

The main purpose of an M&E system is to establish whether the transfer is reaching the intended beneficiaries in time and of the right type and quantity. Beyond this, an M&E system can provide information to the public and program participants, in order to improve performance and is also a necessary forward-looking tool, to learn lessons from experience and improve future programs.

Box 12. Safety net design: Monitoring and evaluation

General principles

- Follow a ‘good enough’ approach in the short term. This is not a ‘second best’ approach to M&E, but is about ensuring a rapid response. It advocates simple tools that are essential, quick and appropriate for the situation.
- Balance of quantitative and qualitative approaches, deductive and inductive approaches and with an emphasis on participation.
- Keep a realistic, limited but well-defined focus, when deciding phasing, actors and the range of indicators.
- More attention is needed to scale up programs and disaster recovery analysis needs to be better linked to assessments of social protection structures in order to restore livelihoods.
- Gender and socio-cultural factors need to be measured, and data needs to be disaggregated across age and gender.
- M&E needs to be prepared in advance, to institute this at a later stage can be complex and confusing
- Consider using pre-existing mechanisms for the M&E system. Linking to broader procedures and institutional structures can enhance the system’s value, reduce costs and help coordination

Sustainability of an M&E system: The need for ownership and openness

- International sponsors of the system should have a clear exit strategy from the beginning.
- High level government buy-in is essential as well as government ownership to ensure sustainability of the mechanism.
- Leadership and good staff capacity are necessary – including a rolling training program to overcome the problem of staff turnover.
- Establishing trust in the system and methodology is crucial for sustaining M&E, and without which all efforts can be undermined.

Data: collection requires a pro-active approach and should be accessible

- An initial evaluation of the trade-off between data quality and costs is necessary.
- Data collection requires a pro-active approach: there should be incentives to submit and use data and minimal costs to doing so, as well as wide publicity through the media.
- Information-sharing is a public good – emphasis should be on providing data.
- The location of an M&E system is important– There is a balance between access/influence for decision-makers (upwards) and proximity and dissemination to the public and program participants (downwards).

Security

Box 13. Safety net design: Security

<ul style="list-style-type: none">▪ Do recipients (from all groups) feel secure about collecting their payments? Is the effectiveness of the transfer being compromised because of their behavior around collecting the transfer?▪ Are there any alternatives to overcome potential security problems?
Ways to improve security
<ul style="list-style-type: none">▪ Minimize distances recipients have to travel to and from payment sites;▪ Establish payment sites within small community areas, where social ties are likely to be stronger;▪ Consider timeliness of payments as a security issue, which can impose additional cost and vulnerability on recipients;▪ Utilize the army or police force to guard delivery of transfers and payments – but be wary if this will add to social tensions;▪ Discuss security concerns and options with communities – and establish community-driven initiatives to safeguard transfers;▪ Consider a banking system (including post office savings and credit options in local shops), so that recipients can both safeguard and store their money.

Planning

One of the main lessons from the case studies is that response to natural hazards can be effective where there is a well-defined management plan and they are essential for high-risk countries.

<ul style="list-style-type: none">▪ Is hazard response being integrated into the general development policy and plans?▪ The need to ensure programs are scalable is key for response to natural disasters.▪ In high risk areas, safety nets in place ex ante, must include disaster risk mitigation as one of their longer term development objectives.▪ Relief activities must be established within a longer term project cycle▪ Is there institutional integration between relief and development divisions?

Scaling up and the transition from short- to long-term assistance

Box 14. The transition from relief to recovery and from ex ante to ex post safety nets

In general
<ul style="list-style-type: none">▪ Build political support;▪ Embed the safety net in legislation or at least the policy framework;▪ Collect sufficient resources;▪ Establish the institutional transition from emergency response to a longer term institutional home;▪ Ensure that the transition does not jeopardize the transfer of resources;▪ Target the program appropriately;▪ Ensure the timeliness and predictability of the transfers;▪ Combine transfers with a livelihood package and consider other linkages to support households.▪ Build back better.▪ Adopt a pre-emptive approach to longer term issues to smooth the transition between relief and development.

Other design issues that also require attention in scaling up

- Who should control contingency resources? Should resources be held at federal level, in order to ensure proper use, despite a commitment to build local administrative capacity and to decentralize decision-making?
- To what scale can the safety net be expanded? Would it be realistic for the risk-financing facility in the PSNP to become a nation-wide program to meet all needs in the event of a disaster/drought?
- What shocks can the program prepare for? Are there other shocks that should be monitored for in the early warning system?
- What complementary risk mitigation measures are needed? If a shock is beyond what the existent safety net can cope with, what other responses should be triggered?
- Who will provide timely risk mitigation resources for the safety net? How will additional resources be sought and received quickly in future droughts.
- Can program objectives be modified where necessary?
- Is the safety net flexible to be fit an even more diverse group of households when scaled up?
- How will appeals and grievance procedures also be scaled up?
- How will the M&E systems be adapted to include new populations – as well as adjusting some of the evaluation and performance indicators as necessary.
- What are the additional responsibilities of staff, their needs and additional capacity to consider?

The transition from the short to medium and longer term safety net assistance: the role of the military and foreign assistance

- How well is the military coordinating with the development agency?
- Is there a clear line of command between the civilian relief/development agency and the military?
- What is the process for the military to disengage from development operations? Are development agencies sufficient equipped to carry out their tasks – both in physical and human resources?
- How are humanitarian and development agencies going to be integrated?

Financing options

There are numerous mechanisms for funding safety nets, and there is considerable scope for more innovation in this area. Funding arrangements will differ for the two different disaster-related programs a) for preventive and ongoing (ex ante) safety nets; and b) for emergency safety nets that take place in response to a shock (ex post), although many mechanisms can finance both types. The emphasis here is on establishing long term funding.

Box 15. Financing options

Some guiding principles

- For lower risk hazards, there should still be prepared plans to implement safety nets that can draw down financing rapidly: emergency international appeals should be a solution of last resort.
- Funding can be flexible and the budget reserved for emergencies – as in Mexico.
- Funding should also focus on the local level – such as through social funds, which have a good track record of fast disbursement in response to crises, even when financed externally by donors.

<ul style="list-style-type: none"> ▪ Donor-financing needs to be effectively integrated into national financing systems to avoid the problems of parallel mechanisms and enhance government ownership.
<p>Funding mechanisms</p> <ul style="list-style-type: none"> ▪ Social funds: financing for community-driven projects which are demand driven and focus on local capacity-building. ▪ National disaster management funds: managed by the central government, they are intended to mitigate the negative impacts of natural hazards, by strengthening disaster preparedness and response. ▪ Private sector financing and informal mechanisms: These may not necessarily be able to finance safety nets entirely, but they may affect the program design. Informal transfers and remittances are a crucial coping mechanism for the poor to protect against idiosyncratic risk. The contribution of informal safety nets more generally, need to be integrated into a disaster management social protection and safety net strategy, to complement the provision of formal safety nets. ▪ Public-private partnerships can be controversial but are still under-researched area. It may be possible to explore the scope for working with the private sector in public works and also, insurance mechanisms. ▪ Multilateral donor funds: to date these tend to focus on relief efforts but if effective, they could be adapted to finance disaster prevention strategies.

The international context

Donors remain responsive to emergency appeals rather than prevention, for three core reasons:

- (i) Politically, preventive mechanisms have little tangible benefit in the short term;
- (ii) Media pressure focuses on the disaster as more newsworthy than averted hazards;
- (iii) Institutionally, there is a lack of trust between the humanitarian community, actors, donors and national governments which have inhibited merging the boundaries between link relief and development.

Box 16. The role of the international arena

<p>Some guiding principles for bi- and multi-lateral donors</p> <ul style="list-style-type: none"> ▪ Governments and donors need to commit to a vision of long-term funding for the recovery process. ▪ The community must be in the driving seat ▪ Procedures for emergencies need to be streamlined in a systematic way, so that procurement and contracting rules are simplified and hence speeded up ▪ International response to prevent and recover from natural disasters needs to be effective, coordinated and sustainable ▪ This requires greater transparency and accountability to both recipients and donors' taxpayers. ▪ There may be opportunities also for pooled funding initiatives ▪ A central knowledge bank where national planners and project designers can access information and expertise on safety net experiences may help coordination and innovation in natural disaster management.
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Abstract

This paper makes the case for why safety nets are an important tool for managing the risk of natural hazards. The use of safety nets is advocated both ex ante, to prevent and mitigate the impact of natural disaster and ex post, to cope with the impacts of natural shocks. Firstly, the paper explores the implications of contextual factors to be taken into account in the design of an effective safety net system to respond to the needs generated by natural disasters. Learning from the responses to a number of recent natural disasters, a typology of the different types of natural hazards which require different approaches to reduce their risk is introduced. Secondly, the paper considers some “guidelines” for improving the design and implementation of safety nets either to prevent and/or to recover from natural disasters. Finally, some conclusions and recommendations for more effective safety net and suggestions for addressing key issues are outlined.

HUMAN DEVELOPMENT NETWORK

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