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Resilience: New Utopia or New Tyranny? Reflection about the Potentials and Limits of the Concept of Resilience in Relation to Vulnerability Reduction Programmes

Christophe Béné, Rachel Godfrey Wood, Andrew Newsham and Mark Davies
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Summary

Resilience is becoming influential in development and vulnerability reduction sectors such as social protection, disaster risk reduction and climate change adaptation. Policy makers, donors and international development agencies are now increasingly referring to the term. In that context, the objective of this paper was to assess in a critical manner the advantages and limits of resilience. While the review highlights some positive elements –in particular the ability of the term to foster integrated approach across sectors– it also shows that resilience has important limitations. In particular it is not a pro-poor concept, and the objective of poverty reduction cannot simply be substituted by resilience building.

Keywords: social protection; disaster risk reduction, climate change adaptation, poverty, vulnerability

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Introduction

Since the 1960s, the concept of resilience has been gaining critical mass in academia. It has now become a central paradigm in disciplines such as ecology, possibly replacing sustainability as the ultimate objective of development. In particular in domains where issues of shocks, vulnerability and risks are critical (such as disaster risk reduction (DRR), climate change adaptation (CCA), or even social protection (SP)), the growing influence of the concept of resilience is particularly prominent. Not only do academics increasingly make reference to it, but practitioners and non-governmental organisations (NGOs) are now increasingly exploring the modalities of its implementation in the field. At the international level, the Intergovernmental Panel on Climate Change (IPCC) recently reinforced this emerging prominence, pointing out: 'Disaster risk management and adaptation to climate change focus on reducing exposure and vulnerability and *increasing resilience* to the potential adverse impacts of climate extremes' (IPCC 2012: 2, our emphasis). In this context, the appropriation of the concept by bilateral and multilateral donor organisations in relation to humanitarian interventions, climate change adaptation or social protection should be seen as the ultimate evidence of this influence within key-players arenas.

A particularly good illustration of this trend is the growing reference to the concept in UK government documents and in particular in various divisions of the Department of International Development (DFID). While the term was almost completely absent from any DFID documents until the early 2000s, it is now publicly recognised as a central objective for this development agency, alongside poverty reduction and economic growth. The UK Government's response to the Humanitarian Emergency Response Review (HERR) in 2011, for instance, presents disaster resilience as 'a new and vital component of [DFID] humanitarian and development work'. Building on this, the UK Government's Humanitarian Policy 'Saving lives, preventing suffering and building resilience', has now put resilience at the centre of its approach to addressing disasters, both natural and man-made. The HERR also states that the policy includes 'commitments to embed resilience-building in all DFID country programmes by 2015, integrate resilience into [DFID] work on climate change and conflict prevention and improve the coherence of [DFID] development and humanitarian work' (DFID 2011: 14).

The UK DFID is certainly not the only bilateral or multilateral donor that recently endorsed the concept of resilience. The World Bank Social Protection and Labour 2012-2022 Global Strategy has as its overarching goal 'to help improve resilience, equity and opportunity in both low- and middle-income countries' (World Bank 2011a: ii). Other examples include the 'Making Cities Resilient' campaign currently implemented by the United Nations Office for Disaster Risk Reduction (UNISDR 2012), the 'Resilience Project' recently launched by the World Food Programme and the Swiss Agency for Development and Cooperation (WFP and SDC 2011), the 'Resilience Week' initiative organised by the US Agency for International Development (USAID 2012), and the 'Building Resilience, Sustaining growth' environment strategy of the Australian Aid Agency (AusAID 2007).

In this context, the objective of this paper is to discuss this recent emphasis on resilience in relation to vulnerability-reduction interventions such as DRR, CCA, and SP. This context is important as it represents the foundation of our current work on Adaptive Social Protection

(ASP). The concept of ASP has been developed in an effort to support the combination of DRR, CCA and SP in policy and practice (Davies, Béné, Arnall, Tanner, Newsham, and Coirolo, in press). By bringing together the objectives of these three streams of work, it aims to provide a framework that helps social protection interventions become more resilient to risks from disaster hazards and climate change, and at the same time help understand how social protection, through its vulnerability reduction interventions, can play a critical role in reducing/buffering the negative impact of climate change and disasters (Béné 2011). As such, the concept of ASP is a direct attempt to respond to the 'silos' approach that can characterise DRR, CCA, and SP (Newsham, Davies and Béné 2011) and has prevented policy-makers, institutions, and practitioners in those three domains from working together (World Bank 2011b).

With this background, our aim in this paper is to build on the most recent lessons derived from the literature on resilience (both academic and project or programme-related) in order to review and expose the potential benefits and limits of this concept. What does it mean (or what does it change) for a particular programme to be resilience-driven? Or, put differently, what should a programme aiming to build the resilience of households and/or communities look like? An increasing number of interventions claim to contribute to households or communities' resilience. To what extent is that actually the case? Are these programmes really changing 'something' in the lives of the households that they targeted, and is this 'something' really resilience? Or is this all old wine in new bottles? Those are some of the questions that have motivated this analysis. Ultimately what we are hoping is to provide some elements of answer to the question: 'what does it mean to strengthen household's or community's resilience to shocks and disasters, and how can we do it?'

The first part of the paper considers a large spectrum of vulnerability-reduction interventions, including DRR, CCA and SP sectors. Although the second part of the document uses SP as a particular case study, we argue that many of the recommendations that emerge from this research are relevant for other sectors and policy domains. Our audience for this paper is therefore broad and includes policy makers, practitioners and researchers working in vulnerability-reduction sectors. We also hope that many others will be interested in the current debate about the practicality of the concept of resilience in a development and poverty reduction context.

1. Decoupling poverty and vulnerability

The background of this discussion is the widely accepted idea that the poorest are often more vulnerable to disasters and climate change impacts than better-off households. Indeed, poor people seem particularly exposed to both climate variability and disasters. During the Indian heat wave of 2003, for instance, it was poor labourers and rickshaw drivers who formed the highest proportion of the 1,400 people who died (DFID 2004). At a more global scale, 98% of those killed and affected by natural disasters 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). The link between high vulnerability to (climate-induced) disasters or shocks, and poverty seems therefore justified.

Nevertheless, the exact nature of this relationship may deserve closer scrutiny if we want to ensure that policy interventions are the most appropriately designed and implemented to maximise impacts on the poor, because empirical data suggests that the relation between (income) poverty and vulnerability might not be as straightforward as often assumed. Using data from households affected by Hurricane Mitch in 1997, Carter and his colleagues found, for instance, that the percentage of affected households does not decrease with household wealth as one would expect, but actually increases. Carter observed that ‘this finding contradicts the notion that poorer households are more vulnerable to shocks’ (2007: 842).¹

In other parts of the world, analysis of Ethiopian households affected by recent shocks also suggests that the richest households are likely to be more affected by shocks than poorer households in the same communities (Béné, Devereux, and Sabates-Wheeler 2012). At the same time Carter’s analysis also reveals that the medium-term effects of Mitch shocks do differ by household wealth. In particular, relatively wealthy households were able to at least partially rebuild their lost assets in the three years following the shock. In contrast, for the lowest wealth groups, the effects of the hurricane on assets were of longer duration and felt much more acutely.

These results emphasise the importance of distinguishing between the sensitivity of households to shocks (where wealthier groups in poor communities may not necessarily be less sensitive to the direct impacts of disasters than their poorer neighbours), and the capacity to recover – where this time wealthier households seem to be better equipped than poorer ones to recover from shocks. Other results call for an additional layer of caution. As highlighted by Pelham and her colleagues, interventions to mitigate risk to disaster may override any other factors (Pelham, Clay and Brunholz 2011). To illustrate this point, they use the case of earthquakes, pointing out that although earthquakes of similar magnitude affect Japan and Peru, the average number of death in Peru is 2,900 per year, while it is only 63 in Japan. This, they argue, is the result of the importance (and levels of investment) given to preparedness interventions, as opposed to simply level of poverty. Similarly, Cuba, which is repeatedly hit by hurricanes, has an excellent record of mitigating risks: in 1998 for instance, while Hurricane Georges killed 589 people in the Dominican Republic and Haiti, only 6 were killed in Cuba (Oxfam America 2004).

The main message is, therefore, to be cautious when considering poverty, vulnerability and (climate-induced) disasters, because although the level of poverty matters, the assumption that vulnerability and poverty are closely correlated does not always hold against empirical evidence. In fact the link seems to be more complicated, highlighting the need to unpack this relationship further. It seems in particular that the capacity to recover and the degree of preparedness of communities are more important than poverty status.

2. Resilience: current definitions

The ‘capacity to recover’ and ‘degree of preparedness’ mentioned above are usually part of what people define technically as ‘resilience’. Cutter *et al.* for instance, in their analysis of

¹ Carter *et al.* however also points out that expressed in terms of percentage, poorer households lost a greater percentage of their productive wealth than wealthier households did.

community resilience to disasters explain that ‘resilience within hazards research is generally focused on engineered and social systems, and includes pre-event measures to prevent hazard-related damage and losses (preparedness) and post-event strategies to help cope with and minimise disaster impacts’ (Cutter, Barnes, Berry, Burton, Evans, Tate, and Webb 2008: 600). In the recent ‘Special report on managing the risks of extreme events and disasters’, the IPCC defines resilience as the ‘ability of a system and its component parts to anticipate, absorb, accommodate, or recover from the effects of a hazardous event in a timely and efficient manner’ (IPCC 2012: 5). Many other technical definitions have been proposed in the literature, which reflect the wide range of disciplines that have embraced the concept of resilience – see Manyena (2006) for an earlier review, and Bahadur, Ibrahim, and Tanner (2010) for a more recent one.

Although all of these definitions differ slightly in their wordings, most of them (at least the most recent ones) highlight similar elements. First, although resilience has sometimes been presented or understood in the past as an *outcome* that can be measured and monitored, an increasing number of academics and practitioners now recognise that a more useful way to conceptualise resilience is to understand it as an *ability* (Brown and Kulig 1996/97; Pfefferbaum, Reissman, Pfefferbaum, Klomp, and Gurwitsch 2005; Norris Stevens, Pfefferbaum, Wyche, and Pfefferbaum 2008). To be more precise, it is the ability to deal with adverse changes and shocks. In fact, the literature suggests that it is the ‘ability to resist, recover from, or adapt to the effects of a shock or a change’ (Mitchell and Harris 2012: 2). This dynamic nature (the recognition that things are not static, but change, adapt and evolve) is in itself a progression with respect to previous conceptions of the world which might have relied too heavily on an assumption of equilibrium and immobility.

Reflecting on this definition, some would argue, however, that what is necessary to resist a shock may be quite different from what is needed to adapt to it. This apparent ‘inconsistency’ between different characteristics of a resilient system, is possibly the main unresolved issue relating to resilience and, is something that we shall examine later in greater length. Finally, the review of the literature also indicates that a last element present in most definitions is that resilience exists at multiple levels or scales: individual, household, community, system, society, etc. (Berkes and Folke 1998; Carpenter, Walker, Anderies, and Abel 2001; Gunderson and Folke 2005)

3. Some good and some not-so-good things about resilience

The benefits of adopting the concept of resilience as a framework for analysis have been highlighted in many different articles (Bahadur *et al.* 2010; Berkes, Colding, and Folke 2003; Walker, Anderies, Kinzig, and Ryan 2006; Carpenter *et al.* 2001). Certainly many would agree that one of the most useful characteristics of resilience is its ability to help frame the issues under consideration within a systemic approach, which is particularly relevant in the specific context of this study for several reasons.

Firstly, a systemic approach is relevant because many of the various types of shocks that affect households and/or societies, are now becoming covariant, i.e. simultaneously affecting

groups of households or even entire communities (Heltberg 2007) as opposed to idiosyncratic shocks that affect individual households (see section 10 below). Good examples of covariate shocks are climate-related shocks or economic crises.

Secondly, adopting a systemic approach recognises that a large number of the processes and dynamics that affect people and/or their environments are occurring across scales (from local to global) (Adger, Hughes, Folke, Carpenter and Rockstrom 2005) and are often characterised by feedbacks (Folke 2006). In this context, resilience appears to be particularly relevant in accounting for these multi or cross-scale and feedback dynamics. Good examples include rural-urban or even transboundary migrations.

Third, a 'pragmatic' advantage of the concept of resilience is its relatively intuitive meaning and the fact that people (academics, practitioners, policy makers), irrespective of their backgrounds and experience, are able to sit down and work together based on the intuitive and relatively loose meaning of resilience: 'the capacity to absorb shocks'. The concept of resilience is thus becoming a form of integrating discourse that rallies an increasing number of people, institutions, and organisations under its banner, as it creates communication bridges and platforms between disciplines and communities of practices, and offers common grounds on which dialogue can then be initiated between organisations, departments or ministries which had so far very little, or no history of collaboration. This role, as an integrating narrative or discourse is however different from the more 'technical' role that the concept is increasingly playing in various disciplines in relation to the points noted above (need to adopt a systemic approach, recognition of the multi or cross-scale and feedback dynamics, etc.).

3.1 Agency, power, and resilience

Despite the advantages listed above, resilience has also been heavily criticised for its weaknesses. One of the most fundamental limitations of resilience (at least for a large number of social scientists) is its inability to appropriately capture and reflect social dynamics in general and consider issues of agency and power (see e.g. Leach 2008; Hornborg 2009; Davidson 2010).

The concept of agency is typically used to characterise individuals as 'autonomous, purposive and creative actors, capable of a degree of choice' (Lister 2004:125), or in other words, the freedom people have to negotiate their own lives (including their own resilience) in face of adverse circumstances. In much of the debate on resilience and social-ecological systems, the agency of people is often veiled, focusing instead on the ability of the 'system' to recover from shocks (Berkes and Folke 1998; Folke 2006; Young, Berkhout, Gallopin, Janssen, Ostrom, Vanderleeuw 2006) rather than the choices exercised by individuals within the system, who may, or may not, exert control over the processes by which resilience is shaped (Coulthard 2012).

Folke (2006) comments on the growing efforts to integrate the social dimension within resilience research, to help bridge social-ecological systems thinking (see also Adger 2003; Gunderson and Holling 2002), and a re-centralisation of agency within resilience debates is an important contribution to these developments. Despite these progresses, Duit *et al.* argue that

‘... resilience is [still] a cumbersome concept for social science, at least when trying to speak of the resilience of social systems. It is difficult to avoid clashes with cornerstone concepts in social science such as power, democracy, and the right to self-determination when attempting to apply the concept of resilience to questions of politics and governance. The reason for this is quite straightforward: even though some similarities can be identified, societies and ecosystems are also fundamentally different in many ways.’ Duit, Galaz, and Eckerberg (2010: 365)

This concern expressed about the limitation of resilience to provide appropriate analytical handle to deal with power is also increasingly recognised within the disaster and climate change community. Cannon and Muller-Mahn (2010) for instance while exploring some of the underlying controversies of development discourses in the context of climate change state that ‘the notion of resilience—whether derived from natural (ecosystem) or technological (physics or engineering) usage—is dangerous because it is removing the inherently power-related connotation of vulnerability and is capable of doing the same to the process of adaptation’ (Cannon and Muller-Mahn 2010: 623). For them, the origin of the concept in natural systems makes the concept inadequate, particularly if it is uncritically transferred to social phenomena, precisely because human systems embody power relations and do not involve analogies of being self-regulating or ‘rational’.

In this respect, it is intriguing to notice that amongst the dozens of definitions proposed in the literature, none of them mentioned the terms ‘power’ or ‘agency’ with perhaps the notable exception of the ISET’s resilience framework². From that perspective, it seems therefore that the concerns expressed by social scientists but also many others regarding the inability of the concept of resilience to handle analytically, or even more simply to capture, issues around power are valid.

3.2 Winners and losers: The concept of adaptive preference

Another issue that emerges from the literature on resilience is the tendency to obliterate the ‘negative’ side of resilience. Resilience is still too often presented as an objective (an outcome) that should be aimed at, with no recognition that resilience is in fact a neutral characteristic which, in itself, is neither good nor bad. In particular, in relation to individuals or communities, resilience is not necessarily positively correlated with wellbeing: some households may have managed to strengthen their resilience but only at the detriment of their own wellbeing or self-esteem.

This last point relates to the somewhat overlooked issue of *adaptive preference* (the deliberate or reflexive process by which people adjust their expectations and aspirations when trying to cope with deteriorating changes in their living conditions) (see, e.g., Teschl and Comim 2005). Amartya Sen had already highlighted this issue of adaptive preference in his reflection on freedom, wellbeing and development:

² While it is not a technical definition and it does not mention power explicitly, ISET’s framework for urban resilience includes agents and institutions as core elements of complex systems (Moench, Tyler and Lage, 2011). ISET’s work focuses on understanding interactions between systems, agents and institutions. From this work, resilience of urban systems is closely related to access to information, rights and voice, and rights to redress and remedy. This interest in systems, agents and institutions also has implications for what aspects of vulnerability social protection interventions might address.

'The deprived people tend to come to terms with their deprivation because of the sheer necessity of survival, and they may, as a result,... adjust their desires and expectations to what they unambitiously see as feasible' (Sen 1999: 62 our emphasis – quoted in Coulthard 2012).

We argue that the issue of adaptive preference does not only relate to discussions on wellbeing, it has also some direct links with the discussion on resilience. In particular, it seems that strengthening resilience may happen in conjunction with the occurrence of adaptive preference. A good example would be when the head of a household resolves to move their family to a less expensive but also less secure part of town (where rents are lower but street crime is higher) in order to cope with the recent loss of their job. By moving to a less expensive place, they certainly increase their ability to cope with the loss of their job (what we would consider a sign of resilience), but at the detriment of some elements of the wellbeing of the family.

This point about the negative side of resilience is consistent with the argument recently made by several authors in the social resilience literature (e.g. Davidson 2010; Coulthard 2012; Armitage, Béné, Charles, Johnson, and Allison, in press) who highlighted the existence of a potential trade-off between resilience and wellbeing. In sum, one can be very poor and unwell, but very resilient.

Beyond this critical issue of adaptive preference, some scholars have also pointed out the risk that (as it is often the case with changes) there will be distributional and externality issues in relation to resilience. Not all interventions may have a positive impact on every household's livelihood. In particular, a community as a whole (or most of its members) may become more resilient as a result of some project interventions but it is likely that there will still be some winners and some losers within the community. As pointed out by Osbahr (2007) and Leach (2008), resilience is inherently a matter of social framing by actors with different preferences and resources. Assessments of resilience in social-ecological systems should therefore not only consider the most general system level, but also take into account possible trade-offs and asymmetries in resilience between different groups and individuals within the same system, especially when the framing of system boundaries is a matter of conflict. In that regard, experience has taught us that already-marginalised households are likely to be amongst the new losers, raising important issues of socio-political economy at the local or even higher level (Berkhout 2008; Hornborg 2009). For these reasons, some authors argue that a simple and unreflecting application of the resilience concept into social and political matters will inevitably run into substantial difficulties (Duit *et al.* 2010; Cannon and Muller Mahn 2010; Davidson 2010) and point out that other concepts such as vulnerability, which have a stronger 'social/actor' focus have been so far ahead of resilience in terms of emphasizing issues such as social justice or power distribution. By reframing climate change or disaster issues into a resilience framework there is therefore a risk of 'moving back' to technical, apolitical interpretations and solutions with the risk that the social justice/transformational dimension of these interventions are ignored or forgotten. While some resilience scholars have already shown some level of awareness about these issues (e.g. McLaughlin and Dietz, 2007; Miller, Osbahr, Boyd, Thomalla, Bharwani, Ziervogel, Walker, Birkmann, Van der Leeuw, Rockström, Hinkel, Downing, Folke, and Nelson 2010), further

effort is necessary to make it more systematically recognised and avoid excessively 'romantic' and positivist interpretations of resilience.

3.3 Linking resilience and vulnerability

What should be clear from previous sections is that resilience alone is not enough to provide a guiding paradigm for climate and development intervention, let alone for development more broadly. This is worth emphasising, because both the momentum the concept has gained recently, and the extent to which it risks being taken for a panacea, are already tangible. An intuitively attractive notion is that some of its shortcomings may be addressed by what could be seen as a 'sibling' concept, vulnerability (which indeed kicked off our discussion of resilience). Yet siblings do not always see eye to eye, and for this reason it is worth specifying what the links are, and where the two terms part company. Despite ongoing debates over the meanings and content of both, we argue that the link can be made in ways which aid development policy and practice, and that the link is in fact necessary because:

- a) It is inevitable, in the context of development (though not inevitable *per se*), that talking about resilience will have to come back to vulnerability at some point
- b) Even though there is overlap, they both bring their own discrete, useful concepts and tools which can, in some cases, be combined (though we don't know enough about this yet).

What is the link?

We suggest that from the point of view of a development practitioner seeking to limit the impacts of shocks on poor people, the link is perhaps best seen as one of trying to move from a state of vulnerability to one of resilience.

This link is not as obvious as it might at first seem, because it depends on differing definitions of resilience and vulnerability, and what they are being used to refer to. As we have seen, resilience has been defined and used by a number of disciplines, in sometimes overlapping, sometimes distinct ways. Vulnerability is in this sense an even more slippery concept because there are so very many definitions of it (see Weichselgartner 2001 for a comprehensive list), and an equally diverse range of uses to which it is put. Given that its intellectual heritage spans geophysical sciences, political economy, human ecology, constructivism and political ecology (Eakin and Luers 2006), this is to be expected. However, there are common elements which, we argue, Neil Adger's definition of vulnerability comes closest to synthesising: "Vulnerability is the state of susceptibility to harm from exposure to stresses associated with environmental and social change and from the absence of capacity to adapt" (2006:268). If this definition is accepted, it is uncontroversial to propose that the link between vulnerability and resilience is that they are both about responding to a disturbance and its implications for humans and (the rest of) nature (Adger 2006; Miller *et al.* 2010)³.

³ This goes some way to explaining why scholars so profoundly associated with vulnerability as Blaikie, Cannon, Davis and Wisner would come up with a definition that makes it sound very much like resilience: "By vulnerability we mean the characteristics of a person or a group in terms of their capacity to anticipate, cope with, resist and recover from the impact of a natural hazard" (Blaikie, Cannon, Davis, and Wisner. 1994:11).

We also follow Adger in another link he makes between vulnerability and resilience: 'vulnerability is influenced by the build up or erosion of the elements of social-ecological resilience...[whilst] discrete events in nature expose underlying vulnerability and push systems into new domains where resilience may be reduced' (2006: 269). This is not quite the same as setting up vulnerability and resilience as polar opposites, and indeed a number of scholars caution against such a framing (for example Gallopín 2006). But it does capture the idea that being more vulnerable can often, though not necessarily always- mean being less resilient. Klein, Nicholls and Thomalla (2003) have argued that this thinking leads to circular explanations: a system lacks resilience because it is vulnerable; it is vulnerable because it lacks resilience. The problem, though, is perhaps not the circularity, but more that formulating the relationship between vulnerability and resilience at this level of generality tells us nothing useful about the object of analysis. Yet the remedy is quite simple: apply vulnerability or resilience to a specific situation. For instance, vulnerability is useful for understanding how people are exposed to a hazard or longer-term disturbance, and how this differs between different groups. This usefulness is why development interventions of many different types frequently go to the trouble of conducting a vulnerability analysis. Undertaking this exercise will in some cases allow us to identify particular measures for building resilience in the face of the disturbance -see e.g. Béné, Mills, Raji, Tafida, Kodio, Sinaba, Morand, Lemoalle, and Andrew (2011). The important implication for development policy and practice is that it remains both desirable and practicable to maintain a 'from vulnerability to resilience' perspective. Making the link in this way can help us see what we should be doing and how to go about doing it.

There are other points in common. In both cases, the unit of analysis is frequently a social ecological system (Adger 2006, Miller *et al.* 2010). Because of this, both approaches attempt to spot and understand the 'feedback loops' in which processes and events happening in ecological systems have consequences for social systems, which in turn repercuss back onto ecological systems, and so on. Yet it must be recognised that a unified way of understanding how social and ecological systems are linked does not exist (Berkes and Folke 1998): an ecological economist and a proponent of adaptive management, for instance, have different ideas about how to explain and understand the relationship (Adger 2006). This is a difficulty common to many forms of interdisciplinary research which take up the same object of study. However, perhaps the answer is to try to get better at interdisciplinary research, troublesome though these difficulties are, and foolish though it is to underestimate them.

Related to the emphasis on social ecological systems is a shared concern with scales and levels. For instance, scholars such as Eakin (2005) and Leichenko and O'Brien (2008) emphasise how local level vulnerability to climate change impacts is affected by global processes. Conversely, in efforts to build the resilience of marginal groups to climate change, Osbahr, Twyman, Adger and Thomas (2008) foreground the importance of undertaking social learning, community reorganization and adaptive capacity communication with institutions working at different levels within a geographical scale (local, national, international). There is not a shared framework around the concept of scale, but it does offer another touch stone.

These are central points of convergence; Miller *et al.* (2010) offer a more comprehensive list.

What are the important differences?

Though there is clearly common ground, there remain fundamental differences in who uses vulnerability or resilience, where they draw their ideas from and what they want to do with them. In the broadest of terms, in spite of what it claims to be focussing on, resilience still has more to say about ecology, and vulnerability more to say about society. This is not so much to do with conceptual limitations as with where people have taken the terms. Again, there are a great many more differences than are discussed here, where there is only space to give a flavour of where differences exist, and where vulnerability and resilience thinkers might come up with better concepts and methods if they find better ways of collaborating. For a fuller list, see Adger (2006), Gallopín (2006), Miller *et al.* (2010) and Manyena (2006).

As noted above, vulnerability has a far wider range of concepts and tools to deal with people, power and politics, though this and other papers show that advances in this regard are being made by thinkers engaged with resilience. As also noted, it is vital that the shortcomings of resilience thinking in these aspects are compensated for by drawing on this wide cannon of vulnerability concepts, tools and experience. Otherwise, the gains that have been made in getting, for instance questions of political economy and differentiated character of inequality (both now mainstream concerns for DfID, for instance), may be lost in superficial framings that favour resilience. It would be short-sighted to adopt resilience because it seems on the face of it a positive quality, and in the process drop vulnerability, owing to its negative connotations (as Cannon and Muller-Mahn 2010 point out). If only for this reason, resilience needs to engage – and is engaging with – what vulnerability perspectives have to offer. More crucially still, if resilience ‘goes to scale’ as a development narrative, using vulnerability perspectives to enrich resilience thinking has to be centre stage. It cannot be left to academics and leftfield practitioners operating on the margins. That is why we want to flag this risk from the outset: vulnerability needs to be front and central in any resilience paradigm.

Because of its ability to understand and explain human systems and dynamics, vulnerability already provides concepts and tools in many areas of development, from nutrition and food security to humanitarian responses. Some of these already use the ‘from vulnerability to resilience’ framing – table 3.1 lists common examples. Therefore, they could provide a starting point for development engagement with this concept, in ways that encourage building links between resilience and vulnerability, rather than adopting one approach at the expense of the other. There are, too, examples of other methodological innovations, such as using agent-based models which attempt to couple “agent[s] to [their] natural and social environments, producing nonlinearity, indeterminacy and path dependency while incorporating risk, perceptions and imperfect information” (Miller *et al.* 2010).

Yet resilience also fills gaps in vulnerability thinking. One important example is that resilience has a much greater understanding of ‘system effects’ (Gallopín 2006). For instance, what happens when different system components interact, how this can lead to ‘emergent properties’ that have unintended consequences or can be unpredictable, especially with our imperfect understanding of how social-ecological systems work. Vulnerability thinking has less to say about these, yet gaining a clearer understanding of them is critical not just to improving development policy and practice, but changing expectations of what can be achieved. Considerations around unintended consequences, uncertainty etc., have

consequences for the kinds of ‘managerialist’ notions that pervade mainstream development discourse. Development is often talked about as if it were managing processes so as to achieve successful outcomes. However, expecting to have the level of control that permits management of a process is often unrealistic, and to a degree which can be counter-productive (cf. Mosse 2004, 2005). If we can gain from resilience better tools for dealing with complexity, we may end up with a clearer idea of what the wider implications of a particular intervention are likely to be and, therefore, how much of the situation we can and cannot manage.

Table 3.1 Vulnerability assessment toolkits compatible with a ‘from vulnerability to resilience’ perspective

Toolkit	Organisation	Description
From Vulnerability to Resilience: A handbook for programming design based on field experience in Nepal	Practical Action	<ul style="list-style-type: none"> Handbook intended to provide practitioners with examples of how “a framework for resilience can be used in practice” Built on a vulnerability and capacity analysis which helps to identify where to focus efforts to build resilience.
Participatory Vulnerability Analysis of people and ecosystems to climate impacts: a methodological guide (forthcoming)	IDS-GIZ	<ul style="list-style-type: none"> A guide produced for field staff of Mexico’s National Commission for Natural Protected Areas. Produces understanding of vulnerability based on analysis of climate impacts on humans and ecosystems. Concerned with the underlying drivers of vulnerability. Can be used to identify ecosystem-based adaptation measures which can contribute to the resilience of social-ecological systems
Climate Vulnerability and Capacity Analysis (CVCA)	CARE	<ul style="list-style-type: none"> One of the original toolkits which incorporated climate change into conventional VCA Combines good practices from analyses done for development initiatives and those done within for disaster risk reduction (DRR) strong emphasis on implications of governance for adaptive capacity
Framework for social adaptation to climate change	IUCN	<ul style="list-style-type: none"> Assesses climate related vulnerability of coastal communities and marine-based industries, though is more widely applicable Uses VCA to offer guidance on how a range of actors can “manage for resilience” Grounded in resilience theory, with a view to showing how it can be applied in practice
Participatory tools and techniques for assessing climate change impacts and exploring adaptation options	DfID-Livelihoods & Forestry Programme	<ul style="list-style-type: none"> Aims to assess vulnerability to climate change in order to develop adaptation measures Designed with Nepal in mind but more broadly applicable Strong livelihood focus

3.4 Resilience and the ‘sustainable development’ dilemma

Finally, one of the key risks of the current engagement with resilience is that it stands in danger of being co-opted in a similar way that ‘sustainable development’ has been in the past. A key problem with ‘sustainable development’ is that it has been mobilised by so many different interest groups to refer to so many different activities that Duffy (2000) has gone as far as to assert that it has become meaningless. Although this criticism goes perhaps one step too far⁴, as for resilience, the risk is that it might itself become a justification for investing

⁴ It is possible to chart the different strands and discourses around the term (see Redclift 2005 for an example).

in approaches that: (a) may undermine long-term sustainability; or (b) which leave less space for alternatives that might offer more benefits for the whole community. Grist (2008) has argued that this latter possibility is already happening with mainstream thinking on adaptation that tends to favour market environmentalism and ecological modernisation, with an emphasis on maintaining rather than challenging the status quo. Katrina Brown suggests for instance that the rationale behind the World Bank's 'climate resilient development' policies is 'to protect economic growth from the ravages of climate change' (2010: 28).

4. Characteristics of a Resilient System

4.1 What does a resilient system look like?

This is the question that a group of practitioners from 26 international NGOs involved in DRR and CCA interventions at the community level have recently tried to answer ((Interagency Resilience Working Group (IWRG) 2012)). Drawing on Bahadur *et al.*'s (2010) initial work, the group identified a series of 10 characteristics which they believe are key characteristics of resilient systems. These are presented⁵ in the first column (left hand-side) of Table 4.1. The second column (right hand-side) is a subsequent attempt made by us to link these 10 characteristics to the existing literature and to identify in particular from which schools of thought and/or discipline they were derived. For illustration the first entry in the list stresses the need for a high level of diversity in various functions and processes of the system, implying that diversification is an attribute that is likely to strengthen resilience. This point refers to the widely accepted principle in both economics and theoretical ecology of the importance of diversification as a risk spreading mechanism (Perrings 1995; Borrvall Ebenman, Jonsson, and Jonsson 2000; Weitzman 2000).

Overall, the left hand-side column reveals that resilient systems are expected to be ones which promote or encourage diversity, flexibility, inclusion and participation; which recognise social values, accept uncertainty and change (at multi-scale); and which foster learning⁶.

As one would expect, the right hand-side of the table reveals the influence of resilience thinking, closely related to the social-ecological systems literature (Resilience Alliance 2012, Adger *et al.* 2005; Berkes *et al.* 2003; Walker *et al.* 2002), in highlighting in particular issues such as uncertainty and change, non-equilibrium, non-linear, and multi-scales dynamics, and adaptive learning. The analysis however also reveals some other features which do not derive from this resilience literature. Instead these are more directly related to social science considerations and make, in particular, specific reference to decentralisation, governance and participatory principles, highlighting the importance of agency. This prominence of social science attributes is worth emphasising, especially in the context of the previous discussion

⁵ Although not explicitly stipulated, the order in the list does not seem to reflect any specific preference or rank.

⁶ Other interesting attempts to characterise what a resilience system look like can be found in the literature. Among these, the ISET work, based on their work on urban resilience is worth mentioning (Moench *et al.* 2011). ISET's work identifies resilience characteristics as: flexibility and diversity, redundancy and modularity, responsiveness, resourcefulness, learning and safe failure. These characteristics are largely drawn from engineering and complex systems thinking. While some of these characteristics are therefore similar to Bahadur *et al.*'s list (e.g. flexibility and diversity, responsiveness) others, such as safe failure, are new.

where it was pointed out that resilience is often criticised for its focus on systems rather than on actors, and its lack of analytical grip on governance and power issues. Clearly, while the analytical and conceptual dimension of resilience as developed amongst academics has failed to provide appropriate responses to these issues of power and agency, those interested in the practical and operational dimensions of the concept have. Incidentally, the growing number of empirical studies that look at resilience in the field all suggest the key role played by social processes such as community cohesion, good leadership, and individual support to collective action to build resilience and cope with change (Schwarz, Béné, Bennett, Boso, Hilly, Paul, Posala, Sibiti, Andrew 2010; Duit *et al.* 2010; Boyd, Osbahr, Ericksen, Tompkins, Lemos, and Miller 2008).

Table 4.1 Characteristic of a resilient system

Characteristics	School of thought
1. A high level of <i>diversity</i> in groups performing different functions in an ecosystem; in the availability of economic opportunities; in the voices included in a resilience-building policy process; in partnerships within a community; in the natural resources on which communities may rely; and in planning, response and recovery activities.	Theoretical ecology + Economic (on risk management and diversification)
2. Effective governance and institutions which may enhance community cohesion. These should be decentralised, <i>flexible</i> and in touch with local realities; should facilitate system-wide learning; and perform other specialised functions such as translating scientific data on climate change into actionable guidance for policymakers.	Decentralised governance
3. The inevitable existence of <i>uncertainty</i> and <i>change</i> is accepted. The non-linearity or randomness of events in a system is acknowledged, which shifts policy from an attempt to control change and create stability to managing the capacity of systems to cope with, adapt to, and shape change.	Resilience characteristic
4. There is <i>community involvement</i> and the appropriation of local knowledge in any resilience-building projects; communities enjoy ownership of natural resources; communities have a voice in relevant policy processes.	Decentralised governance
5. <i>Preparedness</i> activities aim not at resisting change but preparing to live with it; this could be by building in redundancy within systems (when partial failure does not lead to the system collapsing) or by incorporating failure scenarios in Disaster Management (DM) plans.	Ecology applied to DDR
6. A high degree of social and economic <i>equity</i> exists in systems; resilience programmes consider issues of justice and equity when distributing risks within communities.	Participatory / governance
7. The importance of <i>social values</i> and <i>structures</i> is acknowledged because association between individuals can have a positive impact on cooperation in a community which may lead to more equal access to natural resources and greater resilience; it may also bring down transaction costs as agreements between community members would be honoured.	Participatory / social justice
8. The <i>non-equilibrium dynamics</i> of a system are acknowledged. Any approach to building resilience should not work with an idea of restoring equilibrium because systems do not have a stable state to which they should return after a disturbance.	Resilience
9. Continual and effective <i>learning</i> is important. This may take the form of iterative policy/institutional processes, organisational learning, reflective practice, adaptive management and may merge with the concept of adaptive capacity.	Adaptive – management learning
10. Resilient systems take a <i>cross-scalar perspective</i> of events and occurrences. Resilience is built through social, political, economic and cultural networks that reach from the local to the global scale.	Resilience thinking

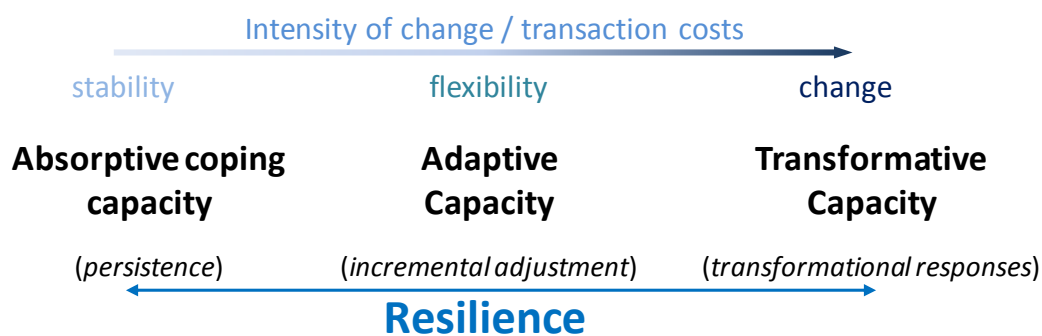
Source: Derived from Bahadur *et al.* 2010

5. The 3-D Resilience framework

As mentioned earlier, resilience can be defined as the ability to deal with the impacts of adverse changes and shocks. This ability includes therefore features such as ‘buffering impacts’, ‘returning to pre-shock situation’ or ‘bouncing back’, but also ‘shock absorbing’, ‘evolving and adapting’ or even ‘transforming’ (Walker, Carpenter, Anderies, Abel,

Cumming, Janssen, Lebel, Peterson, and Pritchard 2002; Berkes *et al.* 2003). This multiplicity of terms reflects the broadening of the concept from its initial relatively narrow focus (the ability of a system to bounce back or return to equilibrium following disturbance - what Holling (1973) referred to as 'engineering resilience') into a more elaborated concept which embraces the ability not simply to bounce back but also to adapt and to transform. In the (relatively specific) context of climate change, the IPCC defines *adaptability* (or *adaptive capacity*) as 'the ability of a system to adjust to climate change (including climate variability and extremes) to moderate potential damages, to take advantage of opportunities, or to cope with the consequences' (IPCC 2001). On the other hand, *transformability* is the 'capacity to create a fundamentally new system when ecological, economic or social structures make the existing system untenable' (Walker *et al.* 2004: 5). Along with the concept of *absorptive capacity* or *persistence* (that is, the various (coping) strategies by which individuals and/or households moderate or buffer the impacts of shocks on their livelihoods and basic needs⁷), these three elements can be seen as the three core components of resilience. Drawing on this, we propose to use the following three components of resilience: *absorptive*, *adaptive*, and *transformative* capacity as the three structuring elements of an analytical framework aimed at understanding better what exactly 'strengthening resilience' means. The framework is presented in Figure 5.1.

Figure 5.1 The 3D resilience framework



The salient point of the framework is the fact that resilience emerges as the result not of one but all of these three capacities: absorptive, adaptive and transformative capacities, each of them leading to different outcomes: persistence, incremental adjustment, or transformational responses.

Figure 5.1 also suggests that these different responses can be linked (at least conceptually) to various intensities of shock or change. The lower the intensity of the initial shock, the more likely the household (or individual, or community, or system) will be able to resist it effectively, i.e. to absorb its impacts without consequences for its function, status, or state. As pointed out by Norris *et al.* (2008: 132), 'the ideal outcome after [a] crisis is resistance, meaning that the resources have effectively blocked the stressor and, accordingly, there is virtually no dysfunction, no matter how temporary'. These authors point out that individuals or systems benefit from resistance strategies on a daily basis, referring to the human immune system as one of the most effective resistance strategies known to exist. Beyond our internal resistance, resistance strategies are also appropriate at a higher scale for dangers that are

⁷ Cutter *et al.* (2008, p.663) define absorptive capacity as 'the ability of the community to absorb event impacts using predetermined coping responses'.

likely to happen with some frequency and can be planned for, such as fires. In the context of our discussion, there are critical systems that aspire to resistance in the aftermath of disaster. Earthquake and fire-resistant buildings, for instance, or redundant power sources are but a few examples of actions that help individual, communities or larger systems to prevent or resist disasters (Norris *et al.* 2008).

However, when the absorptive capacity is exceeded, the individual will then exercise their adaptive resilience (Cutter *et al.* 2008). This adaptive resilience refers to the various adjustments (incremental changes) that people undergo in order to continue functioning without major qualitative changes in function or structural identity. These incremental adjustments and changes can take many forms (e.g. adopting new farming techniques, change in farming practices, diversifying livelihood bases, engaging in new social networks, etc). These adaptations can be individual or collective, and they can take place at multi-level (intra-household, groups of individuals/households, community, etc). These remarks are important because they raise a series of implications. First it means that adaptation at one level can affect or reduce adaptation at another, as adaptation is not a zero-sum game. But it also means that adaptation is a continuous, incremental process which is actually difficult to track or to measure. In fact, as pointed out by Levine and his colleagues, although people do make conscious decisions to adapt their lives, in many other instances, some of these adaptations are not always deliberate or calculated (Levine, Ludi and Jones 2011). In that sense people may not even be aware of how they adapt to changing circumstances or how they improve their work skills. In addition people don't adapt to one specific stressor, but rather to a broad combination of changes. In fact, it is rarely possible to disentangle the multiple changes to which people are responding, and it makes little sense to try to do so (Levine *et al.* 2011; Hertel and Rosch 2010). To further complicate the situation, what would be perceived as an adaptation for one household could be part of a coping strategy for another.

Eventually, if the change required is so large that it overwhelms the adaptive capacity of the household, community or (eco)system, transformation will have to happen. In that case, changes are not incremental any longer. Instead they are transformative, resulting in alterations in the individual or community's primary structure and function. These transformational changes often involve shifts in the nature of the system, the introduction of new state variables and possibly the loss of others, such as when a household adopts a new direction in making a living or when a region moves from an agrarian to a resource extraction economy. It can be a deliberate process, initiated by the people involved, or it can be forced on them by changing environmental or socioeconomic conditions. What the growing body of literature that discusses transformational changes highlights is that the main challenges associated with transformation are not of a technical or technological nature only. Instead, as pointed out by O'Brien (2011), these shifts may include a combination of technological innovations, institutional reforms, behavioural shifts and cultural changes; they often involve the questioning of values, the challenging of assumptions, and the capacity to closely examine fixed beliefs, identities and stereotypes. In other words, they challenge status quo (e.g. Folke, Chapin III and Olsson 2009; Smith and Stirling, 2010).

To be successful these transformational changes therefore typically require changes to entrenched systems maintained and protected by powerful interests. There are, consequently, enormous barriers to transformation, rooted in culture and cognition and

expressed through economic and social policies, land-use legislation, resource management practices, and other institutions and social practices (Kegan and Lahey 2009; Moser and Ekstrom 2010; Pelling 2011; O'Brien 2011).

Finally the top part of the figure reflects the assumption (yet to be fully investigated) that, as we move from absorptive resilience, to adaptive resilience and finally to transformative resilience, the transaction costs and risks associated to these changes increase. The underlying idea is that 'the more you change the higher the transactional costs'. In other words, it costs more to transform a system than to maintain it as it is or to rebuild it as it was.

6. Resilience as a combination of its three components

Understood in a linear way, the framework above suggests that managing for resilience requires directing a system in a way that promotes resistance in a period of small disturbance, adaptation in a time of greater disturbance, and transformability when conditions are becoming unviable or unsustainable. This linear interpretation is conceptually useful but pragmatically too simplistic as it does not recognise the multi-stressor nature of vulnerability, that is, the fact that many different shocks and stresses combine and occur together, each impacting the system with different relative intensities, at different scales, and each requiring separate or integrated levels of resilience (O'Brien, Leichenko, Kelkar, Venema, Aandahl, Tomkins, Javed, Bhadwal, Barg, Nygaard, and West 2004). In addition to this multi-stressor environment, it is also important to realise that a given shock may have differentiated impacts on households, even in the same community. A simple example may illustrate this point: a period of drought in the highlands of Ethiopia may impact severely a farming household and drives its members to engage in adaptive resilience strategy (or possibly transformative resilience), while the same drought event may simply request some absorptive resilience for another household, say a civil servant, in the same community.

In essence this means that building resilience would require interventions that strengthen the three components (absorptive resilience, adaptive resilience, transformative resilience) *together*, and at multiple levels (individual, households, communities, region, etc). An important point therefore is the need to see these three dimensions of resilience as being different perspectives of the same reality, rather than as three independent qualities that can be added, with resilience as the sum of them all. Yet we have still very little systematic understanding about how different systems differ in their ability to cope, adapt or transform with different types of complex change. An emerging notion holds that this task seems to require both stability and change (Duit and Galaz 2008) as well as bridging multilevel linkages within and across different scales (temporal, spatial etc) (Cash, Adger, Berkes, Garden, Lebel, Olsson, Pritchard, Young 2006; Folke *et al.* 2005).

A review of the literature suggest however that there is a growing tendency to present the 3 dimensions of resilience as opposing to each other (resistance vs adaptability, adaptation vs transformability) (see e.g. Young 2010) or to stress the potential tensions between them -for instance the classical risk-aversion theory (the idea that poor households sacrifice longer-

term benefit for short-term survival, leading to asset-based poverty traps (Zimmerman and Carter 2003; Barrett and McPeak, 2004; Barrientos and Nino-Zarazua 2011). Heltberg *et al.* (2009: 91) for instance talk about ‘the trade-offs between short-term coping and long-term productivity and adaptation ..., especially as the impacts of climate change accumulate over time’. In the same vein CARE (2012: 4) drawing on Dodman, Ayers and Huq (2009) see ‘resilience as moving beyond coping strategies towards achieving longer-term development’. Others consider resilience as a process of transformation (Cutter *et al.* 2008). Pelling (2011) supports this ‘transformation’ view, arguing that conceptualising resilience as buffering will lead to the reinforcement of existing practices and maintain the status quo. Berman observes that ‘There is a risk that understanding resilience as ‘buffering’ may prevent necessary changes that would enable more sustainable development’ (Berman, Quinn and Paavola 2012: 89).

This ‘either-or’ approach which puts emphasis on one dimension of resilience (often to the detriment of the others) misses the interdependence that exists between these three dimensions of resilience. While there are certainly trade-offs and tensions between them, presenting these three dimensions as excluding processes leads to the risk of, not simply ignoring, but actually hampering existing (or potential) synergies and complementarities. This risk is real especially since the review of the literature reveals the growing tendency to perceive persistence and stability as negative, and to put emphasis instead on change. For instance Norris *et al.* (2008: 103) view resilience as ‘better conceptualised as adaptability than as stability’. Similarly Miller *et al.* (2010: 5) claim ‘The challenge (...) is to learn to live with change and develop the capacity to deal with it, instead of trying to block it out’. What these statements miss is that capacity to maintain stability is as important as the ability to adapt, or to transform. In fact stability is necessary *for* adaptive or transformative capacity.

First, let’s recall that stability is an essential condition for asset accumulation, thus for poverty alleviation (Zimmerman and Carter 2003; Carter and Barrett 2006). It is indeed during periods of political, economic, and institutional stability that households and societies can accumulate assets, create wealth and enhance human wellbeing. Formal and informal institutions (such as land tenure, capital and labour legislation, informal risk mechanisms, insurances, etc.) were all established to mediate livelihood stability, reduce risk and transaction costs, and all are developed during periods of stability, over decades or sometimes centuries. In short, accumulation but also arguably optimal allocation of resources, requires a certain degree of stability (or some ability to buffer shock).

But stability is not simply a pre-requisite for the accumulation of assets and poverty alleviation, it is also instrumental for building strong institutions (see e.g. North 1990, 2005) and for the emergence of coordinated actions, which are themselves necessary conditions for adaptations. In that sense, stability is an essential element of adaptive capacity as well. Without stability, assets, social and institutional resources that are required to develop adaptive capacity cannot be built up. Levine *et al.* (2011) for instance recall several possible foundations for the link between increased assets and increased adaptive capacity. Firstly, adaptation may have an investment cost barrier, which more assets and higher income may remove. Another possible causal pathway rests on the idea that poorer households have, at least in some circumstances, less adaptive capacity because they are more risk-averse, although it is too simplistic to equate low adaptive capacity with poverty as a general rule. Higher income (in cash or food) could raise these risk horizons, opening up innovation

space. Adaptive capacity would thus be improved through a link between assets (and livelihood outcomes, or income) and innovation. Finally the better-off may also have more adaptive capacity because of the indirect consequences of improved income – e.g. more travel and exposure to ideas and information, better social status and a more influential voice in the community, and more self-confidence. Assets are not sufficient conditions, because at a less tangible level as well, successful adaptation depends to a large extent on the capacity of individuals, societies or communities to coordinate decision-making, to act collectively, foster innovation and experimentation, and exploit new opportunities. Those all relate to strong social fabric established during periods of stability –highlighting the strong relation and synergy between absorptive resilience and adaptive resilience. It is therefore relatively important that institutional settings provide individuals and communities some sort of continuity and direction beyond spontaneous and often unstructured reactions to environmental variability or changes.

This is not to say that stability is more important than flexibility, and persistence may in some circumstances be harmful as it may hamper necessary long term changes. Research into the resilience of rural communities to climate variability in southern Africa (Thomas, Twyman, Osbahr, and Hewitson 2007, Osbahr, Twyman, Adger and Thomas 2008), for example, identified that just maintaining agricultural coping strategies may suppress innovation, reinforce poverty, and prevent the community from being able to address the more complex feedbacks within the social-ecological system. But favouring flexibility and transformation at the detriment of the ability of individuals, communities or societies to create or protect periods of stability would ignore the fact that the conditions to develop adaptive and transforming capacities are generated (or regenerated) during periods of stability. What are needed therefore are interventions where synergy and complementarity between the three dimensions of resilience are fostered, not interventions where only one of these dimensions is favoured to the detriment of the others.

7. Would a resilience approach be useful in the context of climate change-related disasters?

Climate change-related events, including rapid onset ones (floods, disease outbreaks, food price increases) and slow onset shocks (drought, food price volatility, environmental degradation), are now expected to have increasing impacts, both in terms of intensity and frequency, on the livelihoods of populations, with potentially dramatic effects on the vulnerability of levels of these populations. In this context a relevant question is to identify to what extent a resilience approach would be useful - beyond the discourse that is emerging in policy arenas. The literature provides us with some elements of an answer.

7.1. Covariate shocks and stronger links to socio-ecological dynamics

As mentioned earlier, climate change will shift the balance toward more covariate shocks (as opposed to idiosyncratic ones). Covariate risks are indeed likely to increase given that the physical effects of climate change tend to be geographically concentrated (as are many livelihoods), leading to overlapping risks at the local level (Moser, Norton, Stein, and

Georgieva 2010). In addition, the higher frequency and higher severity of these events will quickly exhaust the reserve resources and assets held by actors at all levels. As a consequence of these two processes, communities and countries that had in the past relied mainly on informal individual and collective (local) safety nets and risk-sharing mechanisms such as reciprocal gift-giving and intra-community transfers and borrowing may find that the limit of these informal safety nets is more frequently reached⁸, leading to heightened vulnerability of entire communities.

In this context, bringing in an approach that puts emphasis on 'system' (or sub-system) components may be an advantage. Indeed the resilience framework has been developed in an attempt to incorporate ideas of complex systems (i.e. made of interconnected social and ecological components) and emphasises the functioning of these components as a whole. The focus is therefore on the relationships and inter-dependence between these system components, not on the functioning of individual components in isolation. Additionally, in countries or regions characterised by a strong-dependence of livelihoods on natural resources, especially for the poor (agriculture-related resources, in particular water, forestry, and fisheries), the resilience of communities is inextricably linked to the condition of the environment and the treatment of its resources. In that context, frameworks that emphasise the link between social and ecological dynamics (as resilience does) are at advantage. They are also better articulated to highlight the importance of 'green public works' and other interventions that enhance communities' physical and environmental assets, such as soil and/or water conservation, natural resource rehabilitation (e.g. tree planting), de-silting irrigation activities, climate-proofing physical infrastructure (strengthening embankments, buildings, roads, bridges, or gullies that resist flash flooding), etc (Kuriakose, Heltberg, Wiseman, Costella, Ciprik, and Cornelius 2012).

7.2 Flexibility and issue of scale

In their recent background paper on 'making social protection climate responsive' the World Bank highlights the importance of designing scalable and flexible programs. Those scalable programmes, they argue, are 'one of the single most important evolution elements to help [social protection] programs respond better to climate-related disasters, in the same way that it is important for responses to economic shocks' (Kuriakose *et al.* 2012: 12). Scalability means that programs can rapidly expand coverage during crises and scale back afterwards; it also means ability to scale up levels of support to existing beneficiaries to cope with the impact of shocks.

This issue of scale is also at the heart of the resilience approach. Notions of 'scale' and 'cross-scale' are indeed central in social-ecological resilience thinking. Gibson, Ostrom and Ahn (2000) use scale to refer to the 'spatial, temporal, quantitative, or analytical dimensions used by scientists to measure and study objects and processes'. Thus, scale is a social construction but it provides a foundation upon which decisions about the measurement and management of ecological and social phenomena are made, and also influences choices about the diversity of variables and cross-scale interactions to be considered. In that sense, resilience thinking recognises that most management settings must consider multiple scales to deal with seasonal and intra-annual fluctuations in resources and exploitation patterns,

⁸ More distant informal safety nets (e.g. remittance) are likely to be more climate-resilient.

and account for exogenous and endogenous drivers of change or shocks. In practical terms, an understanding of resilience should therefore enable system actors to better evaluate the likelihood and desirability of shifts or transitions among different system configurations. Carpenter, De Fries, Dietz, Mooney, Polasky, Reid, and Scholtes (2006) for instance, in their reflections about research needs in relation to social-ecological systems and the Millennium Ecosystem Assessment, remind us of the importance of cross-scale effects. They cite the example of the loss of buffering coastal ecosystems that eventually exposed extensive regions of the coastline to catastrophic damage in the 2004 Asian tsunami and recurrent hurricanes in the Gulf of Mexico.

Accounting for scale is also useful in relation to adaptation. As Osbahr (2007) recalls, local development models need to take a holistic and multi-scalar perspective to livelihood adaptation. Such a scale-sensitive approach would help in particular to acknowledge that adaptations at the village level can sometimes impede adaptation at the household level. Adaptation is a competitive process, subtly differentiated by context, adaptive capacity and perception of risk. Trade-offs between productivity and resilience mean that the most resilient systems at one scale may not be the most resilient at another. Thus, there are limits to adaptive projects and their inherent capacity to support responses to climate change for all.

Note that the issues of scale as described by Kuriakose and her colleagues are not the same as the scale issue discussed by Carpenter *et al.* or Osbahr. The term is the same but the emphasis is somewhat different. The former relates to the need to design programmes that allow for scalability and flexibility, while the latter refers to the need to recognise the scale-related nature of system dynamics, resilience and adaptation.

7.3. The 'unknown unknown' and the need for adaptive capacity

Climate changes will cause some environmental variables to deviate from their historical range. It may become more difficult to anticipate specific effects with any certainty, particularly at the local level. Models based on time-series data will not be able, therefore, to provide adequate guidance to forecasting climate variables and planning adaptation (Dessai and Wilby 2010). The same will happen to traditional decision making processes and local strategies developed on communities' historic experience. In addition to these changes in trends that may be beyond the experience, or at least the coping capacity of the affected people, it is also possible that there will also be extreme events that are unprecedented and for which anticipation will be difficult (New, Liverman, Betts, Anderson, West 2012; IPCC 2012). Uncertainty and the possibility of surprise imply that successful adaptation will not be guaranteed. For planners but also for communities, households and individuals, this translates into the need to plan for the 'unknown unknown'. What is needed therefore is to strengthen people and society's *ability* to adapt to *unknown* changes (adaptive capacity), in addition to support their adaptation to predicted changes.

Levine *et al.* (2011) argue that adaptive capacity rests on people's agency, that is, their ability to make their own, better (i.e. more informed) choices and to develop and successfully execute their own plans. They argue further that in most cases, climate change adaptation interventions (by NGOs, or development agencies) help to strengthen assets and, in some situations, institutions, but they usually don't incorporate a broader view of the need to

support the adaptive capacity of local people and communities. Without agency there is no adaptive capacity, and without adaptive capacity there is no ways people and society can cope with future (unknown) changes. It makes however little sense to speak of agency without a consideration of the broader structures – or systems, in resilience thinking – that impinge upon the possibility of exercising agency.

Most assessments of adaptive capacity at the household or community level have focused on assets and capital as indicators (Dulal, Brodnig, Onoriose and Thakur 2010). While useful in helping us to understand what resources people have or need to adapt, these asset-oriented approaches tend to mask the role of processes and functions (Jones, Jaspars, Pavanello, Ludi, Slater, Arnall, Grist, and Mtisi 2010). Understanding adaptive capacity, therefore, requires that we also recognise the importance of intangible processes such as decision-making and governance, the fostering of innovation and experimentation, and the exploitation of new opportunities and the structure of institutions and entitlements. This means ‘moving away from simply looking at what a system *has* that enables it to adapt to recognising what a system *does* that enables it to adapt’ (Levine *et al.* 2011: 5, our emphasis). In that sense strengthening adaptive capacity is more than simply providing assets or technology. It is about developing people’s agency, it is about governance and power.

As mentioned above, however, resilience approach is not particularly well equipped to embrace these social issues of agency and power. Some would argue (e.g. Hornberg 2009; Davidson 2010; Cannon and Muller-Mahn 2010) that resilience does focus on systems (rather than actors) and until recently has had an ecological emphasis (while for instance vulnerability has a stronger ‘social/actor’ focus and has been so far ahead of resilience in terms of emphasizing issues such as social justice, power distribution, etc.). By reframing climate change disaster issues into a resilience framework, there is therefore a risk to move back to technical, apolitical interpretations and solutions with the consequence to ‘evacuate’ the social justice/transformational dimension that is needed to ensure adaptive capacity.

7.4. Transformation and the need to challenge the *status quo*

The difficulty faced in handling issues of power and human agency also led some scholars to raise questions regarding the utility of the concept of resilience in providing the right framework in the context of (social) transformation (e.g. Pelling and Manuel-Navarrete 2011; O’Brien 2011). Transformation, they argue, but also to some extent adaptation can be held back by power structures. Indeed, even if transformation presents opportunities to innovate and develop renewable materials and technologies, and create for instance ‘green’ economies (Barbier 2010), these changes often challenge the status quo, threatening those who benefit from current systems and structures. Analysing the ability of urban communities in Mexico to engage in transformative changes in the face of climate change, Pelling and Manuel-Navarrete (2011: 10) observed for instance that in these communities the ‘systemic alienation of individuals was instrumental in supporting dominant structures through the production of compliant citizenry’ and resulted in a restriction of the direction, focus, and amount of innovation effectively adopted. The result was resistance to change within state-level institutions and a lack of individual responsibility combining to constrain systems’ flexibility and adaptive capacity.

Power, agency, and how these interplay in fostering or impeding flexibility, innovation, and transformation are therefore critical. There is a growing agreement that these are not, however, necessarily well analysed through a resilience lens. As noted earlier in this document, it is for instance illustrative to observe from the dozen of definitions of resilience proposed in the literature, that none contain the terms ‘power’, or ‘political processes’. This raises some concerns about the ability of resilience (as defined in the current literature) to provide the right over-arching framework for understanding changes or shocks such as these induced by disasters and climate changes, and how individuals, communities and societies manage these changes and their impacts⁹.

8. Resilience and social protection

8.1. The 3P&T-3D framework

What do these various reflections mean for social protection interventions and more broadly for any intervention that aims at reducing vulnerability? In order to answer this question we propose to come back to the 3D resilience framework that was presented in the previous part of this review and combine it with the Protection-Prevention-Promotion-Transformation (3P-T) framework that was developed by Devereux and Sabates-Wheeler (2004) based on Guhan’s initial work (1994). The 3P-T framework is a conceptual typology that reflects the fact that social protections interventions can be separated into different categories (Protection, Prevention, Promotion, Transformation) based on their general objectives and the types of vulnerabilities they are trying to address. These are presented succinctly below and presented in greater detail in Table 8.1.

Protective measures include social policies and instruments aiming at protecting marginalised individuals or groups such as children, orphans, elderly, or disabled people through the establishment of social welfare programmes – e.g. pension schemes, protection programmes for children or other at-need groups. In the context of DRR, protective measures usually refer to instruments associated with shorter-term interventions such as the distribution of food, or cash, aimed at supporting peoples’ existing coping strategies in the immediate aftermath of a disaster. *Preventive* measures are defined as social or disaster-linked policies and other safety net interventions that directly seek to reduce vulnerability of individual or groups to specific shocks and hazards through for instance unemployment schemes, insurance, or food and/or cash transfers. *Promotive* measures include policies and interventions aimed at enhancing income, capabilities and resilience through activities such as micro-credit programmes, livelihood diversification programmes, or cash or asset transfers (e.g. starter packs). *Transformative* measures include policies and interventions

⁹ Efforts to complement resilience thinking with power analyses are starting to emerge, however: a recent example is the analysis of Mark Pelling and David Manuel-Navarrete (2011) in which these authors combine Anthony Giddens’s (1984) account of power with resilience to explain how, in social systems, stable institutional structures can be highly resistant to change, in an attempt to maintain status quo. This rigidity in the norms and decision making processes can leave little space for alternative visions, and even run the risk of being insufficiently flexible to be able to deal with emerging threats, such as those connected to climate change.

that seek to address concerns of social justice and exclusion through, e.g. promotion of minority rights or positive discrimination policies to redress discrimination and abuse.

Table 8.1 The 3P-T framework

Protective measures	<i>Protective measures</i> provide relief from deprivation. They are narrowly targeted safety net measures in the conventional sense –aiming to provide relief from poverty and deprivation to the extent that promotional and preventive measures have failed to do so. In particular, protective measures include social assistance for the ‘chronically poor’, especially those who are unable to work and earn their livelihood. This equates most closely to mainstream ‘social welfare’. Social assistance programmes typically include targeted resource transfers – disability benefits, single-parent allowances, and ‘social pensions’ for the elderly poor that are financed publicly – out of the tax base, with donor support, and/or through NGO projects. Other protective measures can be classified as social services. These would be for the poor and groups needing special care, including orphanages and reception centres for abandoned children, feeding camps and provision of services for refugees and Internally Displaced Persons (IDPs), and the abolition of health and education charges in order to extend access to basic services to the very poor. In the Disaster Risk Reduction context protective measures also includes emergency feeding programmes, support for reconstruction, and restocking assets.
Preventive measures	<i>Preventive measures</i> seek to avert deprivation, and deal directly with poverty alleviation. They include <i>social insurance</i> for ‘economically vulnerable groups’ – people who have fallen or might fall into poverty, and may need support to help them manage their livelihood shocks. This is similar to ‘social safety nets’. Social insurance programmes refer to formalised systems of pensions, health insurance, maternity and unemployment benefits, often with tripartite financing between employers, employees and the state. They also include informal mechanisms, such as savings clubs and funeral societies. Strategies of risk diversification – such as crop or income diversification – are also considered as preventive measures. More recently new forms of preventive measures in relation to climate change adaptation and/or disaster risk reduction are emerging such as crop and weather insurance and health insurance to protect health and livelihood assets (e.g. livestock).
Promotive Measures	<i>Promotive measures</i> aim to enhance real incomes and capabilities, and promote improved opportunities and livelihoods, which is achieved through a range of livelihood-enhancing programmes targeted at households and individuals, such as microfinance and school feeding. They might also include conditional cash transfers which incentivise investments in human capital by promoting demand for education and health and help address gender inequalities, public works (indirect) road, infrastructure, access to credit, asset transfers and livelihood diversification support programmes or micro-credit for livelihood promotion are also promotive social measures.
Transformative measures	<i>Transformative measures</i> seek to address concerns of <i>social equity</i> and exclusion, such as collective action for workers’ rights, or upholding human rights for minority ethnic groups. <i>Transformative</i> interventions include changes to the regulatory framework to protect ‘socially vulnerable groups’ (e.g. people with disabilities, or victims of domestic violence) against discrimination and abuse, as well as sensitisation campaigns to transform public attitudes and behaviour and enhance social equity.

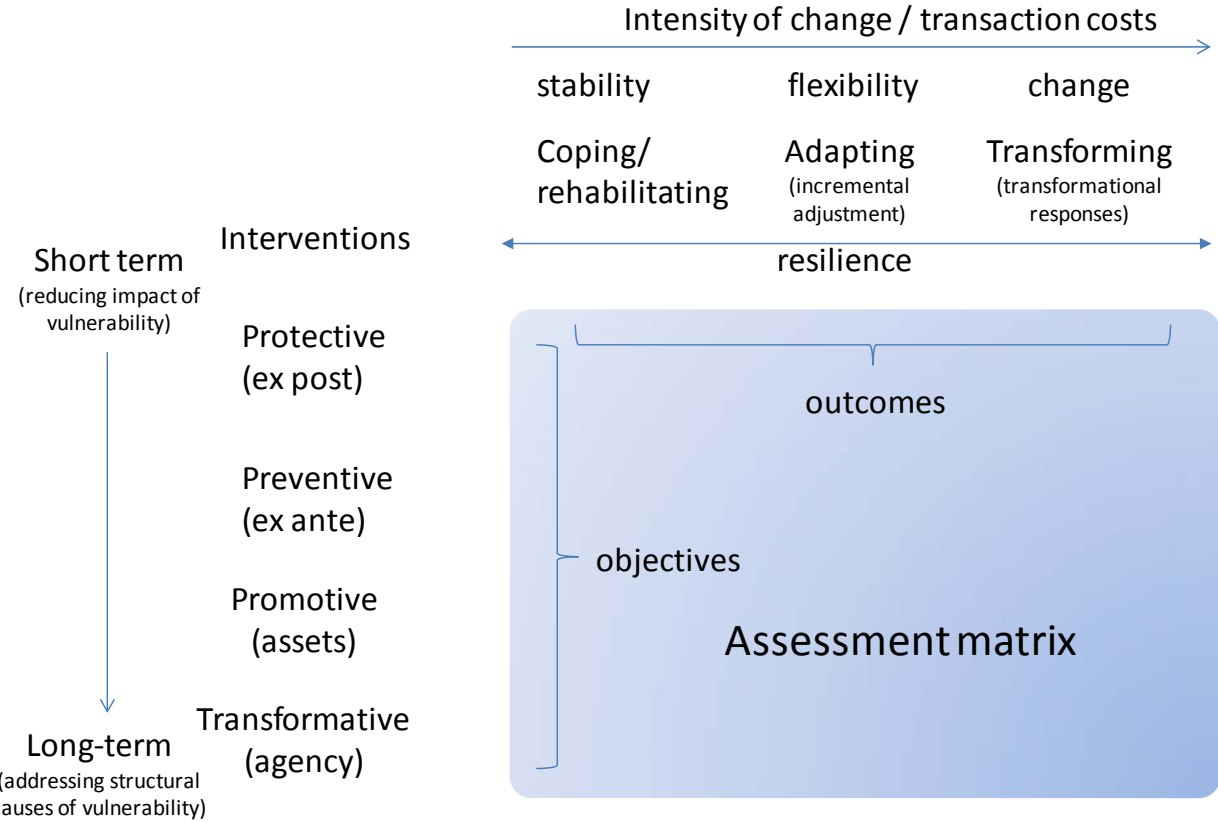
Source: Devereux and Sabates-Wheeler (2004); World Bank (2011a)

These categories are not strictly separated and may in effect overlap, as some interventions do for instance simultaneously ‘promote’ incomes as well as ‘prevent’ deprivation. Public works projects are examples of these as they aim at both transferring short-term food or cash (prevention), and building useful long-term infrastructure (promotion). The 3P-T is nevertheless very relevant, not the least because it encompasses the newly proposed World Bank social protection framework which relies on the 3P’s: Prevention, Protection, and Promotion (World Bank 2011a). The inclusion of the additional ‘T’, the transformative dimension, is also extremely useful as it expands the analysis beyond this now well established 3P framework and helps focus attention on the relatively neglected area of social risk and institutional vulnerability.

Combining the 3P-T typology and the 3D resilience framework together allows us to build a two dimensional assessment matrix (Figure 8.1) that can be used to explore more systematically the implications of some of the points discussed in the previous sections. In particular, the matrix provides an innovative analytical framework to evaluate whether or not social protection programmes (but also other vulnerability-reduction programmes such as CCA or DRR programmes) contribute to strengthening the resilience of their beneficiaries, and if so through which dimensions: coping, adapting, or transforming. In the framework the

vertical 3P-T axis captures the initial objectives of the programmes, while the horizontal axis reflects the outcomes of these programmes, evaluated in terms of resilience.

Figure 8.1 The 3P&T-3D analytical framework



To illustrate the use of the framework, we applied it to four particular programmes: Oportunidades, in Mexico; the Productive Safety Net Programme in Ethiopia; the Child Support and State Old Age Grants in South Africa and the Challenging the Frontiers of Poverty Reduction/Targeting the Ultra Poor (CFPR-TUP) programme in Bangladesh. Table 8.2 summarises the result of applying the frameworks to these examples while the section below provides a more thorough analysis.

Table 8.2 Applying the 3P&T-3D analytical framework to four cases studies: (1) = Oportunidades (Formerly Progresa) (2) = PSNP plus OFSP/HABP (3) = Child Support Grant plus State Old Age Grant (4) = The Challenging the Frontiers of Poverty Reduction/Targeting the Ultra Poor (CFPR/TUP) programme in Bangladesh

Intervention typology	Resilience dimensions		
	Coping	Adapting	Transforming
<p>Protective 1,3, and 4, = Cash to provide financial security, protect livelihoods from shocks, improve nutrition. 2. Cash and food to provide security, protect livelihoods from shocks.</p>	<p>1.Cash used to buy more and better food (Hoddinott and Skoufias 2004), contributing to improved anthropometric indicators (Fernald, Gertler, and Neufeld 2008). 2. When people participate for long enough, the PSNP transfers are used to maintain food security and retain assets in areas where there have been droughts (Berhane, Hoddinott, Kumar, Tafesse, Diressie, Yohannes, Sabates-Wheeler, Handino, and Lind 2011). 3. Children of CSG and SOAG recipients are better nourished, and more likely to attend school than non-recipients (Duflo 2003; Samson, Lee, Ndiebe, Mac Quene, van Niekerk, Gandhi, Hangaya, and Abrahams 2004; Agüero, Carter and Woolard 2007). 4.CTFP-TUP recipients eat more regularly (Das and Shams 2011) and are less likely to engage in asset-depleting activities in the face of a shock than non-recipients.</p>	<p>1. Recipients invest more in productive investment than non-beneficiaries, and achieve sustainable increases in consumption (Gertler, Martinez and Rubio 2005) (Winters and Davis 2007, cited in Devereux, Sabates-Wheelers and Guenther 2009). Non-beneficiaries also benefit from multiplier effects (Barrientos and Sabates-Wheeler 2009).2. Participants are more likely to undertake their own business and non-farm activities (Gilligan, Hoddinott and Tafesse 2008). 3. Grants used to make savings, invest productively, engage with credit markets, and strengthen and facilitate access to informal support networks (Neves, Samsom, M. van Niekerk, I. Hlathswayo, S. and Du Toit 2009). 4. Money is used to get access to credit, for children’s education, to pay for weddings, savings, and to get involved in BRAC microcredit schemes (Das and Shams 2011; Hashemi and Umaira 2011)</p>	<p>3.Transfers may empower people otherwise excluded by informal support networks (Neves, Samsom <i>et al.</i> 2009).</p>
<p>Preventative 1. Conditionalities on school enrolment and attendance, on consumption of ‘<i>papilla</i>’ supplements, and provision of free health care under a subsidised insurance scheme.4. Beneficiaries are offered free health care for the two-year duration of the programme, including access to major surgeries, free medication, etc.</p>	<p>1. Oportunidades can help families to deal with unemployment and illness-related shocks without taking children out of school (de Janvry, Finan and Sadoulet 2004). The nutritional supplements lead to better intakes of better intakes of iron, zinc and Vitamin A when they are taken properly (Ramirez-Silva, Rivera and Leroy 2008). Oportunidades also reduces illness among child beneficiaries (Gertler 2004), and has led to increasing demand for health services (Escobar Latapi and Gonzalez de la Rocha 2008).4.Free health services are a major strength of the BRAC programme, but it can be difficult for people to adjust to losing them once they have graduated (Hashemi and Umaira 2011).</p>		
<p>Promotive 1. Conditionalities on human capital investment, on health checks, safe birth, and post-natal checks and attendance to educational <i>pláticas</i> (‘Informative classes for mothers) for mothers and infants. 2.Creation of public assets, and linkage to the OFSP (now HABP)</p>	<p>1. Conditionalities can reduce the coping function of the programme by generating an opportunity cost or leading some people to drop out, get de-registered, or self-exclude (Escobar Latapi and Gonzalez de la Rocha 2008). 2. Where people participate in the PSNP and the OFSP (pre-HABP), they were found to be more food secure.</p>	<p>1.Impacts on educational attainment (as measured by test scores) are negligible (Behrman, Parker and Todd 2005). 2. When households participate in both the PSNP and OFSP they are more likely to borrow for productive purposes, use improved technology and operate in non-farm activities (Gilligan, Hoddinott <i>et al.</i> 2008). However, graduation rates are low, and the concept is poorly understood by beneficiaries (Berhane <i>et al.</i> 2011). 4. Participants can see major increases in income from use of the assets provided to them (Das and Shams 2011),</p>	<p>1.In Oportunidades, conditionalities on ‘<i>pláticas</i>’ can reduce women’s domestic isolation, while contributing to their women’s social capital, and self-confidence (Adato, de la Briere, Mindek and Quisumbing 2000). However, some worry that the emphasis on ‘co-responsibilities’ is contrary to a rights-based focus (Molyneux 2006).4. Development of new activities led to women being ‘transformed’ from being dependent members of the household to being earners with better social</p>

<p>which offers technology packages and advice 4.Asset transfer, skills training, mandatory savings scheme, and the option of taking out micro-loans.</p>		<p>and there have also been unintended spillover effects, as non-beneficiaries emulate beneficiaries by beginning productive activities (Hashemi and Umaira 2011). However, people in very vulnerable situations are not well placed to take advantage of the asset transfers (Hashemi and Umaira 2011). Meanwhile, most graduates took out at least one micro-loan, and this led to improved per capita incomes (Shams, Mahmud <i>et al.</i> 2010), although informal markets do not always offer the space for a major upsurge of micro-enterprise activity (Hashemi and Umaira 2011).</p>	<p>networks and self-confidence.(Hashemi and Umaira 2011).</p>
<p>Transformative 1.Transfer money to mothers to boost bargaining position of the woman within the family. 4. 'Village assistance committees' (VAC's) to gain local elite support and raising of women's awareness legal issues relating to marriage.</p>		<p>4.In one case, a VAC went on to fulfil a number of services including repairing or building five houses, installing sanitary latrines and tube wells for TUP members (Hossein and Matin 2004 cited in Hashemi and Umaira 2011). At the general level, VACs are essential to maintain ongoing support for beneficiaries once the NGO has left, and to ensure local buy-in (Matin, Sulaiman and Rabbani 2008). Higher levels of social, legal and political awareness have also increased chances of female participation in micro-credit schemes (Shams <i>et al.</i> 2010)</p>	<p>1.Transfers can increase female autonomy (Escobar Latapi and Gonzalez de la Rocha 2008), although others worry that the strong focus on women's role as mothers retrenches traditional gender inequalities (Molyneux 2006). 4.Poor women can benefit from the security and opportunities provided by patronage networks fostered by the VAC's (Hossain and Matin 2007), and awareness of the legal age of marriage has risen due to the education provided.</p>

8.2. Oportunidades programme in Mexico

Oportunidades (initially known as Progresa) was introduced in Mexico in 1997 to substitute for the phasing out of tortilla subsidies and other anti-poverty programmes that were widely seen as clientelistic and poorly targeted. It is based around the concept of 'conditionalities' or 'co-responsibilities' whereby beneficiaries (mainly mothers and young children) must ensure regular attendance to growth controls, educational classes on nutrition and parenting, and school, as well as timely consumption of nutritional supplements by infants, lactating and pregnant women. These co-responsibilities are often enforced quite firmly, with the grant being withdrawn for non-compliance. The programme is targeted, and the amounts of money given to families vary according to levels of poverty and vulnerability, as well as the school grade reached by children. Different transfers of money are associated to specific objectives (e.g. nutrition, food security, education).

We can use the (vertical) dimension of the 3P&T-3D framework to categorise the programme's objectives. The *protective* nature of the programme is reflected in the fact that the cash transfers are aimed at ensuring financial security and protecting the livelihoods of the beneficiaries from shocks. At the same time conditionalities on consumption of 'papilla' supplement for pregnant and lactating mothers, 4-23 month olds, and underweight 2-5 year olds all aim at boosting mother and child nutrition, thus contributing to *prevention* objectives. This preventive dimension is reinforced by the fact that the beneficiaries are offered access to free health care under a subsidised insurance scheme. Finally some degree of *transformative* intention is present in that the transfers are made purposely to the mothers (as opposed to the fathers) with the aims to boost women bargaining position within families.

Due to the large number of independent impact evaluations carried out that demonstrated a positive impact, Oportunidades has been widely considered a successful programme, and has been continued by different governments and to some extent replicated across Latin America. Some of these positive impacts can be considered to contribute to the *coping (absorptive) capacity* of households. In particular cash transfers were shown to be consistently used by the beneficiaries to buy more and sometimes better food (Hoddinott and Skoufias 2004). Another study shows that transfers in Oportunidades are also large enough to protect child nutrition from price shocks (Gitter, Manley and Barham 2011). Similarly early studies suggested that Oportunidades is associated with significant reduction in illness among young child beneficiaries (Gertler 2004) and in child labour (Parker and Skoufias 2000). The capacity of the programme to strengthen the absorptive resilience of households was also demonstrated when a study showed that with Oportunidades transfers, families can withstand unemployment and illness-related shocks without taking children out of school (de Janvry *et al* 2004).

Other results suggest that Oportunidades also contributes to build beneficiaries' *adaptive capacity*. Two studies show for instance that Oportunidades payments lead to increased participation in micro-enterprise activities, including investments in animals, land use and agricultural products, leading to sustained increases in consumption beyond the value of the cash transfer (Gertler, Martínez and Rubio 2005; Winters and Davis 2007, cited in Sabates-Wheeler *et al* 2009). Whether migration is a coping or an adaptive strategy is still being debated as it is unclear whether an increase (or reduction) in migration should be considered

'coping' or 'adaptive'¹⁰. In any case, two studies on the impacts of Oportunidades on migration have shown apparently contradictory results – one found an increase (Azuaa 2009), the other a reduction in migration of beneficiaries (Stecklov, Winters, Stampini, and Davis 2005). Less ambiguous is the conclusion of Barrientos and Sabates-Wheeler (2009) who show multiplier effects among non-beneficiaries, including significantly higher food consumption, land and livestock ownership in treatment areas than in areas where the programme was not operating.

Finally, conditionalities on '*pláticas*' (Informative classes for mothers) helps reduce women's domestic isolation, strengthening their social capital, and boosting their self-confidence (Adato *et al.* 2000). As such the programme can be seen as strengthening the *transformative capacity* of these women. Some evidence was found for instance that men have gradually accepted female control of money from Oportunidades, and that female autonomy has increased (Escobar Latapi and Gonzalez de la Rocha 2008). Others worry however that the strong focus on women's role as mothers retrenches traditional gender inequalities (Molyneux 2006) and places additional burdens on women who are responsible for ensuring that the conditionalities are adhered to.

8.3. The Productive Safety Net Programme (PSNP) and Household Asset Building Programme (HABP) in Ethiopia

The Productive Safety Net Programme (PSNP) was established in 2005 as a means of breaking Ethiopia's dependence on emergency food aid by providing cash and/or food transfers to vulnerable households in food insecure *woredas* (districts). These vulnerable households receive support for several months of the year for up to five years, bridging their annual food consumption gap, until they are no longer chronically food insecure and are better able to cope with moderate shocks. At this point, the household is considered to be food sufficient and is ready to 'graduate' from the PSNP (Devereux *et al.* 2008). The two components through which transfers are made are as follows: (i) public works – provision of employment on rural infrastructure projects such as road construction and maintenance, small-scale irrigation and reforestation; and (ii) direct support – provision of direct unconditional transfers of cash or food to vulnerable households with no able-bodied members who can participate in public works projects. To complement the PSNP, the Household Asset Building Programme (HABP) promotes livelihood development and diversification (its predecessor was the Other Food Security Programme (OFSP)).

The safety net (*protective*) function of the PSNP comes via cash and food payments made through the public works component. These transfers are expected to provide financial security, protect livelihoods from shocks, and improve nutrition. In addition, unconditional cash transfers are available for households that are unable to contribute labour. These households include those with elderly, sick, disabled people, women who are 4 months pregnant and lactating mothers up to 10 months after birth so long as there is no other able bodied person in the household who can do the work. The programme also has the potential to be '*promotive*' on the basis that it creates assets at the community level (roads, bridges, soil conservation, bunds, etc) that can dynamise local economies and generate new opportunities. The link to the HABP, which is demand-driven and offers technology packages

¹⁰ Sometimes being able to avoid migration is a positive adaptation.

and advice, also contributes to strengthen the promotive function of the programme through linkages to other actors like the Small and Medium Sized Enterprise Development agency. One problem, though, is that PSNP payments appear to be unpredictable, which stops beneficiaries from planning around them, thereby limiting the potential promotional function of the programme (Berhane *et al.* 2011).

In terms of coping (*absorptive*) capacity, recent analysis shows that where the definition of 'treatment' includes anyone who receives any work at all in the PSNP, the impact on food security is found to be negligible, but higher where 'treatment' is defined as receiving PSNP and HABP supports (Gilligan *et al.* 2008). Overall the transfers have been successful at avoiding famine and protecting food security, assets and livelihoods in areas where there have been droughts (Berhane *et al.* 2011) even if the cash payments have been eroded by food price rises, meaning that many beneficiaries would prefer food transfers (Sabates-Wheeler and Devereux 2010).

The PSNP was shown to strengthen (to some extent) the *adaptive* resilience of the beneficiary households. In particular, studies show that in the cases where households can participate significantly (i.e. when they get over half of their days work allotted to them) and where they also participate in the HABP, they are more likely to borrow for productive purposes (although many struggled to repay loans), use improved technology (e.g. 10.7% increase in fertilizer use) and engage in non-farm activities (Gilligan *et al.* 2008). Also access to public works was shown to increase the chance that people undertake their own business but slightly reduces labour participation among males (Gilligan *et al.* 2008). All those are potentially important elements to build the adaptive capacity of recipients.

While graduation is often presented as evidence of *adaptive* or even *transformative* capacity (see below the BRAC example), it seems that so far, the PSNP graduation rate is generally low, (probably less than 10% of participants have graduated) (Berhane *et al.* 2011). Beyond this no other element of the PSNP seems to contribute to adaptive or transformative capacity.

8.4. The Child Support Grant and State Old Age Grant in South Africa

The Child Support Grant and State Old Age Grant are two programmes operated as part the South Africa's welfare system. Unlike social protection programmes in many other developing countries, South Africa's grants are unconditional. The grants have their legacy in the Apartheid system (the SOAG was started in 1928), which offered welfare to white populations. The post-Apartheid period has seen an expansion of the grants to include previously excluded groups. The amounts paid have increased significantly in real terms since 2001, while the coverage of the CSG has expanded, from all children below seven years to all children below fourteen years. In practice, the primary caregivers are usually the children's mothers. A large part of them are considered to be vulnerable: 76.7% of CSGs are paid to African women of working age, and 26.3% are African women under the age of 30 (Williams 2007). If the mother is not present, other family members (usually grandparents or the father) may apply. The SOAG is an unconditional cash transfer targeting all women aged 60 and above, and men aged 65 and above, with single assets under \$3500 or combined

assets under \$7000 per year. Both the SOAG and the CSG are *protective* social protection programmes in nature¹¹.

In their own terms, most evidence suggests the impacts of these grants are positive, leading to significant material benefits and often being used in complex ways for livelihood protection and improvement (du Toit and Neves 2006; Neves *et al.* 2009; Du Toit and Neves 2009). Moreover, fears that they create a 'culture of dependency' or increase fertility rates have generally been discounted (Makiwane and Udjo 2006; Makiwane 2010; Neves *et al.* 2009). Effectively the two grants programmes have been shown to contribute to reduce the vulnerability of the beneficiary's households and to strengthen their *coping capacity*. More particular evidence of a significant impact of the CSG on height-for-age of children under 36 months has been documented (Agüero *et al.* 2007), while for the SOAG programme, a study shows that when recipients are female, granddaughters have better nutrition (Duflo 2003), although the same is not true for male recipients and grandsons. Assessment also shows that cash transfers lead to an average 25% fall in school non-attendance (Samson *et al.* 2004).

Beyond these, the two programmes also seem to support strategies and behaviours that are expected to enhance the households' *adaptive capacity*. Qualitative research for instance shows that the poor use these grants to invest in physical, human and productive capital (Neves *et al.* 2009) but also to strengthen and facilitate access to pre-existing informal support networks. The cash was found to lead to higher levels of savings and engagement with credit systems on favourable terms, as well as to search for better jobs. In fact analysis of migration shows that prime age adults in households receiving SOAG are much more likely to migrate than people of other ages, and people of the same age in non-recipient households. Furthermore, effects are greater for families with lower socioeconomic status and significantly stronger for female migrants (Sienaert 2007).

Finally, some would argue that these grants provide some element of *transformative capacity* in particular when they help mitigating the 'dark' side of social capital by providing resources to people who would otherwise be disempowered within informal networks (particularly women and single mothers) (Neves *et al.* 2009). Less positive analyses, however, suggest that the grants have been used as compensation for high levels of unemployment and the unwillingness of the government to implement more 'transformative' changes to reduce structural inequality in South Africa (Fryer 2011).

8.5. The Challenging the Frontiers of Poverty Reduction/Targeting the Ultra Poor (CFPR/TUP) in Bangladesh

In Bangladesh, one of the poorest and most disaster-prone countries in the world, the NGO BRAC's 'Challenging the Frontiers of Poverty Reduction/Targeting the Ultra Poor (CFPR/TUP) programme was designed in response to the realisation that BRAC's most common intervention, micro-credit, was not reaching the ultra-poor. It also attempted to address the recognition that the ultra-poor are excluded by most government and NGO

¹¹ Indeed although the SOAG is a pension scheme (usually considered as prevention programme), the SOAG is a non-contributory pension (unconditional cash transfer). As such it is a protective programme.

activities, and require targeted interventions to help them graduate (Harriss-White 2005; Hulme and Moore 2007; Matin *et al.* 2008).

In the language of BRAC, the CFRP/TUP approach relies on two types of interventions, those aimed at 'pushing down', i.e. instruments designed at securing and bolstering the livelihoods of the ultra-poor (these could correspond to the 3 P's in the 3P-T) and 'pushing out', which is aimed at the broader structures that reproduce poverty (this might correspond to 'transformation') (Matin *et al.* 2008). For this, the CFRP/TUP uses a combination of cash transfers, asset transfers, skills training, obligatory savings, micro-credit and awareness-raising activities. Participants are usually involved for two years, after which they have the option of taking out a loan and joining a micro-credit group.

BRAC's own evaluations of the programme suggest great success in graduation, as 92% of its beneficiaries moved from extreme poverty to above the extreme poverty line over a six-year period (Sulaiaman 2009, cited in Hashemi and Umaira 2011). Income impacts of the programme were found to be significant, particularly for the absolute poorest, who have had a 43% rise in income (Das and Shams 2011). This success is to some degree related to the capacity of BRAC staff not just to implement the programme activities but to adjust components of the programme to changing circumstances.¹²

In terms of *protection*, the CFRP/TUP cash transfers are expected to provide financial security and protect livelihoods from shocks. These transfers, which are equivalent to 175 Takas/week (US\$2) for 6-12 months, only go to the 'specially targeted ultra-poor group'. The programme also includes some *preventive* elements. Beneficiaries for instance are offered free health care for the two-year duration of the programme, including access to major surgeries, free medications, etc. The programme complements these preventive elements with a strong *promotive* component through asset transfers (usually livestock or seed capital), combined with skills training (including weekly one-on-one meeting with a BRAC member of staff), mandatory savings scheme of 10 Takas per week (US\$0.1), and enterprise inputs. Finally, *transformative* elements are conducted in parallel to the other components throughout the programme. These transformative elements revolve around the establishment of 'village assistance committees' (VAC's) to mobilise local elites to meet their traditional responsibilities by offering advice, help on getting access to state services, protection from theft, and in making sure children go to school. BRAC staff also organise regular community workshops to raise women's awareness of their rights around issues such as the legal age for marriages, the legal procedure for divorce, and punishment for giving/taking dowry, etc.

In terms of outcomes, there is strong evidence that through its activities the CFRP/TUP allows the beneficiaries to strengthen their *coping capacities*. The proportion of ultra-poor recipients that manage to secure at least two meals regularly per day increased from 46% to 82% during 2007-2009 (Das and Shams 2011). Studies also showed that per capita expenditure on food increased (Das and Shams 2011) and that the recipient households were less likely to engage in asset-depleting activities in the face of shocks. However an earlier evaluation found little impact on child nutrition (Hulme and Moore 2007).

¹² For example, BRAC scaled down support for poultry-rearing as a livelihood when it was realized that this could expose the ultra-poor to risks (Matin *et al.* 2008).

Beyond strengthening the coping capacities of the recipients, the activities of the CFPR/TUP also boost their *adaptive capacities*. Studies show that recipients' money is invested into children's education, even if impacts on education are relatively limited as the programme does not offer any supply-side intervention (Das and Shams 2011). The recipients are also able to get access to credit (Das and Shams 2011; Hashemi and Umaira 2011) and after two years of participation, the beneficiaries are significantly more likely to be engaged in saving, and to get involved in BRAC microcredit schemes. Thus 69% of CFPR graduates take out at least one loan, and participation in micro-credit groups is improving the per capita income of those families (Shams *et al.* 2010). Levels of social, legal and political awareness are also shown to increase the chances of female participation in micro-credit schemes (Shams, Mahmud *et al.* 2010). The programme does not seem to have any particular impact on migration (Rabbani, Prakash and Sulaiman 2006) but its focus on agricultural assets seems to lead to significant increase in income from own farming (Das and Shams 2011). In addition positive spillover effects are also reported in local areas where the programme is implemented, as non-beneficiaries start rearing goats to emulate beneficiaries (Hashemi and Umaira 2011).

In some circumstances the programme has been somehow the victim of its own success¹³. Local informal markets for instance do not always offer the space for a major upsurge of micro-enterprise activity and BRAC often has to intervene to generate markets (Hashemi and Umaira 2011). Similarly supply of health services does not always increase fast enough to meet rising demand.

Finally the CFPR/TUP leads to some form of *transformative changes*. The implementation of the activities helps a large number of women benefit from shifting from the status of dependent members of their households to money earners (Hashemi and Umaira 2011). New social networks of women are established and often endure, which also boosts their self-confidence (Hashemi and Umaira 2011). For poor women, greater involvement in patronage networks is a key benefit of the programme, although one would have to see how this plays out in the long-term (Hossain and Matin 2007). The percentage of women who know the legal age of marriage has risen from 11% to 31%.

8.6. Summary of the case studies

The four social protection programmes presented above cannot and should not be simplistically compared like-for-like. Although they all share some objectives such as providing a safety net and attempting to provide a springboard for the poor to move out of poverty, they have also been implemented in different contexts, and been framed in different ways. For example, the primary objective of the PSNP is to provide consistent support to food-insecure areas and reduce dependency on food-aid, which differs from the emphasis in Oportunidades on incentivizing human capital investment. The problems facing the countries are also quite different: the threat of famine is not as pressing in Mexico as it is in Ethiopia, while South Africa does not have problems of limited school enrolment, which is a typical justification for conditional cash transfers. Another issue is the need to be careful when

¹³ Less positive outcomes, in particular in relation to the graduation, were documented as well. It was shown for instance that gains from graduation can be significantly reduced by the effects of losing the access to the health care following graduation (Hashemi and Umaira 2011).

comparing a programme like BRAC, which attempts to involve protective, preventative, promotional and to some extent transformational components under the rubric of one programme, and South Africa's grants which focus on protection and where promotional or transformational components are likely to be provided under other government policies and programmes.

Despite this, a number of conclusions can be made about the four programmes. In Mexico, Oportunidades is generally considered to be a successful programme, thanks partly to the significant number of robust impact evaluations that have been done on it. It has proved successful as a safety net to those involved in it, has improved school enrolment and attendance, and has positively impacted on some nutritional indicators, although stunting and anaemia remain high in some rural areas of the country. There are, however, still question-marks over whether the greater educational enrolment is being translated into better educational outcomes, and the programme faces the challenge of getting a good balance between the use of conditionalities to maximise positive impacts with the need to be inclusive to vulnerable people.

Literature on South Africa's unconditional grants is generally positive, although it can be argued that the focus on them obscures the need to look at more structural issues that reproduce inequality and poverty in South Africa. Additionally, when comparing South Africa's unconditional grants to other conditional schemes, it is important to acknowledge that some of the problems that other conditional cash transfers are supposed to remedy, such as low school enrolment and child labour, are not so significant in South Africa (Neves *et al.* 2009). Moreover, another key issue to remember is that the contributions of these grant programmes to 'transformative social protection' are likely to depend on the functioning of other policies. As Devereux writes, policy changes in South Africa's post-Apartheid era have not been limited to the grants, but have included other initiatives such as black economic empowerment and the safeguarding of rights of vulnerable groups (Devereux 2010a). Therefore the relative success or failure of these other policies needs to be considered when considering whether the grants contribute to 'transformative social protection.'

Meanwhile, the PSNP, in combination with the HABP has been successful in protecting peoples assets and livelihoods, but less so in bringing about meaningful graduation (Hoddinott *et al.* 2011). A recent study also shows that although the PSNP has managed to improve households' food security and wellbeing, the positive effects of the programme are not robust enough to shield recipients completely against the impacts of severe shocks, in particular drought (Béné, Devereux and Sabates-Wheeler 2012).

Finally, the literature on the CFPR-TUP is more unambiguously positive than on the other programmes, particularly in achieving graduation. One possible caveat to this is that the majority of impact evaluations on the CFPR/TUP have been carried out by the BRAC staff themselves -although their findings were supported by an independent verification (Posgate *et al.* 2004, cited in Hossain and Matin 2007) and Hulme and Moore (2007) find no reason to challenge these findings.

9. Integrating the 3 P's and the T and promoting the 3 dimensions of resilience

A first conclusion of this comparative analysis is that 'just cash' can do more than just allow people to cope with shocks especially if the amounts transferred are large enough. The strongest evidence for this comes from South Africa's grants, which are at the upper ends of social transfers for middle-income countries in terms of the amount transferred (Grosh *et al.* 2008, cited in Neves *et al.* 2009), and have been found to be used in a number of complex ways to improve people's livelihoods (Du Toit and Neves 2009; Neves *et al.* 2009). These uses of grants could potentially contribute to 'adapting' or even 'transforming' people's lives in the context of uncertainty and (climatic) shocks if these grants could strengthen or generate types of livelihood strategies (e.g. migration) that are less vulnerable to these shocks. Yet the implications of grant usage for climatic vulnerability *per se* have not been looked at thoroughly.

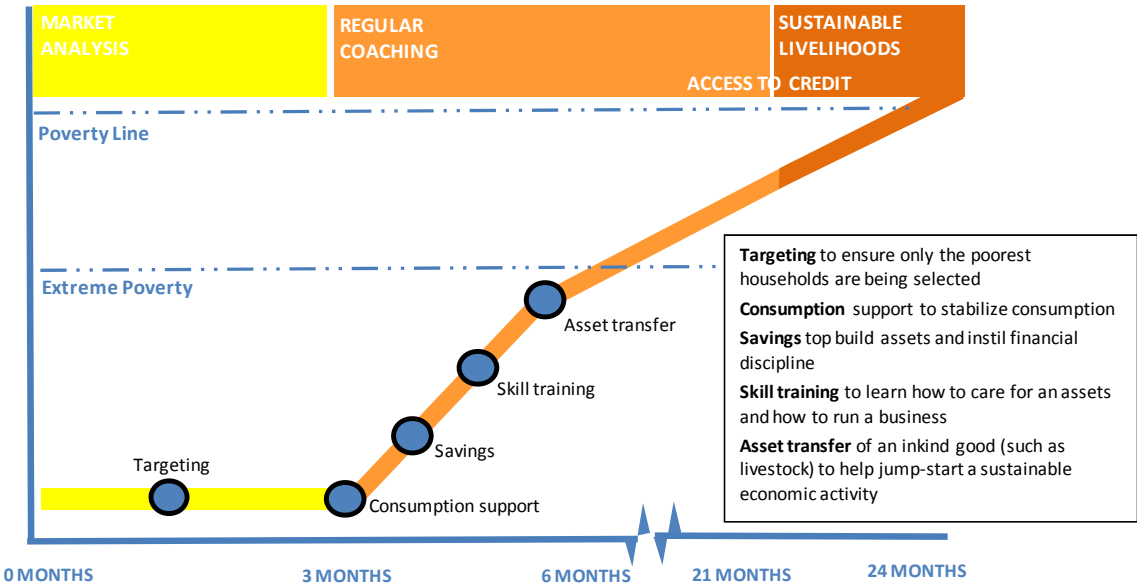
In other cases, preventative and promotional measures can be incorporated by linking a social protection programme with other schemes. For example both the CFPR-TUP and Oportunidades offer free healthcare to beneficiaries, the former by offering to cover the costs for the two years that they are closely involved in the programme, and the latter by allowing beneficiaries free access to the 'Popular Health Insurance' scheme. Similarly, linking protective measures with schemes offering preventative and promotional components can have clear dividends, as shown by the analysis of the PSNP where beneficiaries who received both public works opportunities and access to the HAPB show improvement in food security, increase in their likelihood of borrowing for productive use, in using fertilizers and in participating in non-farm activities (Gilligan *et al.* 2008).

What is missing, however, is a more rigorous and thorough discussion of the impacts of these combined interventions in terms of resilience building. Béné *et al.* (2012) made a first attempt to address this question by combining the recent discussions on resilience as found in the social-ecological systems literature -including the different dimensions of resilience, i.e. buffer capacity, adaptability, transformability (e.g. Nelson, Adger and Brown 2007; Folke *et al.* 2010), with the current understanding on shocks and coping strategies as proposed in the development literature (e.g. Dercon, Hoddinott and Woldehanna 2005; Devereux, 2010b). Applying this approach in the case of the PSNP, they explore how and to what extent the PSNP does help to strengthen the resilience of the beneficiaries of the programme. They made some noteworthy observations. They found for instance that strategies contributing to the adaptive dimension of households' resilience (asset building strategies including investment in education, health, assets and skills) are more strongly linked to income than to asset wealth, as if people were drawing more on cash than on pre-existing assets to engage in these strategies. If this result was to be confirmed by other studies, it would substantiate the hypothesis that cash transfers can be efficient channels to stimulate innovation and adaptive capacity (ILO 2010; Godfrey Wood 2011).

The BRAC's CFPR/TUP programme goes further than the others in addressing all components of the transformational social protection framework under one programme. In

the process, BRAC’s emphasis on both ‘pushing down’ (Matin *et al.* 2008) (policies targeted specifically at the livelihoods of the ultra-poor) and ‘pushing out’ (changing broader structures and processes that reproduce poverty, in particular by building of the socio-political assets of the ultra-poor) seems key here. The evidence of positive impacts in terms of graduation, including asset accumulation, food security, change in subjective poverty and awareness of legal rights among others, suggests that, to be achieved, resilience needs to be built through a holistic approach that integrates and implement a variety of interventions. These interventions should combine protective, preventative, promotional and transformative measures into a sequential and incremental approach –as represented on Figure 9.1.

Figure 9.1 BRAC Graduation Model



Source: Redrawn from Hashemi *et al.* (2011)

Altogether these combined and complementary measures ensure that the outcomes lead to the strengthening of each of the three dimensions of resilience (absorptive, adaptive and transformative) and not simply to the adaptive and transformative capacity of these households. Indeed, the importance of safety nets as the ‘bedrock’ of transformational social protection and resilience can be seen in the fact that all programmes (and not simply the CFPR-TUP) have a ‘protective’ component, even those which are strongly focused on ‘promotional’ or even ‘transformative’ outcomes. This suggests that while the ‘protective’ component is insufficient to bring about resilience on its own, it can be a pre-requisite for preventative, promotional and transformational measures to be effective. As we’ve just seen, the strongest example of this is the CFPR-TUP, where BRAC addressed the recognition that their existing promotional interventions (namely micro-credit schemes) were not benefiting the poorest people. In the CFPR-TUP, cash transfers are then offered to give recipients the security necessary to invest time and effort in the ‘promotional’ components (e.g. turning the livestock asset transferred into a viable income-generator) (Matin *et al.* 2008). Interestingly, this links directly to the earlier point we made in this document where we argued that accumulation in period of stability (ensure by absorptive capacity) is crucial to build up adaptive and/or transformative capacity.

This said, the key question remains whether the programme has clear and explicit transformational objectives or not. Like most social protection programmes, the ones described here have only limited 'transformational' measures (with perhaps the exception of the CFPR-TUP). The CFPR-TUP goes further in looking at 'transformational' measures than the other programmes, for example by raising women's awareness of their legal rights regarding marriage, divorce and the dowry system. To some extent this is probably because in the cases where transformational measures (e.g. minimum wage, anti-discrimination legislation, upholding of rights) are taken seriously, they are generally dealt with in different ministries and programmes.

Also relevant in this discussion on transformational changes is BRAC's concerted effort to incorporate local elites into the running and maintenance of the CFPR-TUP by forming 'village assistance committees' (VACs). This was made as an attempt to address the exclusion of the ultra-poor from the patron-client networks that the poor tend to use to gain a degree of livelihood security. In addition, it is an intervention aimed at influencing public attitudes and behaviour in favour of marginalised groups. This decision marked a break from BRAC's traditional focus on attempting to either bypass local elites, or actively confronting them (Hossain and Matin 2007). The advantages of engaging local elites is that it ensured the 'enduring, day-to-day, on-site support' (Hossain and Matin 2007) that is necessary for the effective functioning and durability of the programme's other interventions. For example, the VAC's were enlisted with the tasks of providing support for beneficiaries during crises, ensuring they get access to health services and that children are enrolled in school. It is hard to say if the VACs have contributed to 'transformational' outcomes, but they do seem to have bolstered protective, preventative and promotional interventions and contributed to resilience.¹⁴

Finally it is also worth noting that 'linking' the four components of the transformational social protection framework in this way can have downsides in the context of programmes that are either heavily targeted or have high expectations of graduation. Firstly, if additional services are channelled towards social protection recipients, it may mean that non-beneficiary poor and vulnerable households may find themselves excluded twice (Escobar Latapi and Gonzalez de la Rocha 2008). Secondly, gains made from providing 'preventative' measures for beneficiaries whilst they are in a programme can be quickly undermined if those measures are then removed upon graduation. Hashemi and Umaira (2011) for instance note that many BRAC beneficiaries suffer from the loss of free healthcare once they have graduated, and that this poses a significant challenge to graduation.

10. Discussion: resilience, new utopia or new tyranny?

The initial motivation for this research was the growing role that resilience seems to play in several different but related arenas: in the academic circles first, where it is becoming (again) paradigmatic in some disciplines (e.g. ecology); in certain communities of practice, in particular those where issues of shocks, vulnerability and risks are critical such as disaster

¹⁴ Some would argue however that as such it does look more like an attempt to collude with the local elite than to challenge (really transform) the local power status quo.

risk management or climate change adaptation. More recently it has become influential in some other areas of development and vulnerability reduction such as social protection. Effectively, not only do academics increasingly make reference to it, but practitioners and NGOs involved in these domains are now exploring the modalities of its implementation in their programmes. Following these, policy makers, donors and international development agencies (including DFID, the World Bank, OECD, the WFP, etc.) have also largely 'appropriated' the term.

In that context, the objective of our work was to take stock of this growing influence and build on the most recent reflections proposed in the literature to better understand the pros and the cons of using the concept. We wanted in particular to go beyond the cloud of rhetorical statements that surrounds the concept and assess, in a critical manner, its advantages and limits in relation to DRR, CCA, and SP.

Several reasons can be identified that explain the growing prominence of the concept of resilience in these domains. First is the fact that applying a resilience framework helps thinking holistically (i.e. about the 'system'). In situations where an increasing number of disasters and shocks are becoming covariate, and where the vulnerability of individuals is intensified by their social and economic dependence on others – who appear themselves to be also affected by the same disasters and shocks-, the holistic (systemic) nature of the concept of resilience and its emphasis on system components' interdependency is particularly relevant.

Second, a system-centred concept (such as resilience) also appears particularly pertinent if we recognise that a large number of the processes and dynamics that now affect people and the environment (market volatility, population dynamics, biodiversity and environmental degradation, etc) are cross-scale processes, and characterised by both positive and/or negative feedbacks. A good illustration of the relevance of a holistic/systemic approach would be the investigation of the vulnerability of urban slum dwellers. In that case only a systemic approach would allow capturing and accounting appropriately for the connectivity of urban processes to dynamics outside the cities, and in particular the strong dependence to rural dynamics such as rural-urban migration or food and water supplies.

In the context of rural livelihoods, resilience and its emphasis on system and holistic thinking does also find some resonance in relation to natural resources and the environment. Poor are recognized to dependent more heavily on natural resources. In that sense the resilience of a community is inextricably linked to the condition of the environment and the treatment of its resources. Emphasizing this social-ecological dependence helps defining (or redefining) more adequately the vulnerable groups (thus improving the targeting process) but also, possibly, help better designing 'green' public works programmes aimed at environmental rehabilitating or natural resource conserving (such as reforestation, and soil conservation measures).

In the same line of argument, it is now well recognized that an environment stressed by unsustainable practices may experience more severe environmental hazards. For instance, large-scale deforestation has been shown to have been a key factor in increasing the flooding hazard in the 1998 floods in China (Wisner et al., 2004), and loss of coastal wetlands is known to be a contributing factor to the severity of impacts of tropical storms and

hurricanes on coastal zones (Folke et al. 2005). Resilience thinking is therefore useful to ensure that the social-ecological links are recognised and better included in disaster risk reduction interventions.

The resilience interest in complex systems has some further value for social protection. With rapid migration across nation-state (system) boundaries, many of those most in need of social protection measures may well be from outside the system and there will be challenges for national governments to weigh up needs and interests of their own citizens and migrants. If the system is defined as the nation state we may well see resilience coming to endorse more nationalistic approaches to social protection. But equally, resilience theory could argue the case for more transnational approaches, and to debate about labour, food systems across national boundaries.

Finally, the idea behind resilience appears also remarkably 'intuitive' and attractive. Talking about 'strengthening disaster-resilient communities', or 'building climate-resilient infrastructure' sounds 'right'. As such, resilience is becoming a policy narrative (as opposed to simply a technical concept dealt with by scholars interested in impact of shocks on systems) that offers the ability to bring people (practitioners, policy makers), organisations with different initial agendas, and communities of practice from different sectors, together around the same table with the unique objective of 'strengthening resilience'. This broker capacity is a great advantage which has already been recognised and used by several international development agencies and multilateral donors to create multi-sectoral collaboration. A good example of this is the recently launched 'Resilience Project' which uses the resilience concept as a platform to "share knowledge, foster policy dialogue, and field level collaboration" (SDC and WFP 2011). In our specific context, this role of policy integrating narrative may appear to be a useful complement to the adaptive social protection concept in that it can help integrating SP, DRR, and CCA. It seems central to all three and, therefore, of common interest to those working on these issues, providing them with opportunities to work together in supporting an integrating agenda.

But these two functions presented above (the technical role as a pertinent concept to characterize dynamic systems and the use as an intuitive policy discourse) are distinct and should remain separated. Mixing or even confounding them is part of the problem as it does not necessarily help assessing correctly the concept. As we noted, part of the appeal of the concept is that resilience has an everyday meaning that is intuitively understood. But the confusion of this specific technical meaning with the everyday connotations is also part of its weakness. In particular when resilience enters public policy debates it has all sorts of connotations from its more everyday meaning and usage – of rigidity, stoicism, self-sacrifice – that many resilience theorists would argue are not what is captured in the technical concept of resilience. We therefore need to separate our use of resilience as a technical concept and its application to social development, from our use of the discourse of resilience within social development (and associated public policy arenas).

Resilience is not a panacea, and, as this document (along with others) has shown, the concept has its limitations. Starting from the least severe, it is important to keep in mind the fact that, although intuitive, the concept of resilience still remains relatively complex and particularly difficult to operationalise and/or to measure (Béné, Mills, Ovie, Raji, Tafida, Kodio, Sinaba, Morand, Lemoalle, and Andrew 2011). There is therefore a risk that adopting

a resilience approach makes things over-complicated without necessarily offering an easy analytical framework. The multiplication of definition, their evolving nature, and the necessity to consider scales and other issues (the now famous “resilience of what to what”) means that reframing issues into a resilience framework may not always be the most appropriate approach. It may overcomplicate the analysis and add up layer of complexity or questions where these are not necessary to answer the initial question: For instance, do we necessarily need to adopt a resilience framework to analyse the potential role of social protection programmes to strengthen the adaptive capacity of the recipients? Through her comprehensive review, Godfrey Wood (2011) illustrates that the answer is no...

There are also concerns with the theory of resilience, and how the concept is applied in certain academic disciplines as specific concept, with clearly defined meanings and application. Some of the problems we are encountering with the uptake of the theory of resilience can be related to a partial reading of this theory. But many advocates of resilience theory would also argue that too much is now expected from resilience. For them, resilience does not address many of the concerns of social development. Rather than trying to mould resilience to meet these needs and thereby losing the core elements of resilience theory, they would argue that resilience needs to be supplemented by other more socially-grounded theory (see in particular Armitage et al. in press who discuss the potential role of the concept of well-being to complement resilience).

Another important potential issue highlighted in this report is the need to move away from the either/or discourse adopted at the present time in the literature where the three dimensions of resilience (stability, adaptability and transformability) are presented as antagonistic and excluding each other. This way to conceptualise resilience is not necessarily the most appropriate one: the potential synergy (as opposed to trade-off or even opposition) between these three dimensions need to be acknowledged and more systematically built upon. In particular the role of stability as necessary condition for the creation or accumulation of assets and capital (financial but also human, institutional and social) is currently overlooked – or even dismissed- in the name of flexibility and adaptability. While the recognition that systems are not in immutable equilibriums does represent a definite progress in our understanding and conceptualisation of social-ecological systems, the current emphasis on adaptability misses the point. Accumulation of assets in period of stability (ensured by resistance) is crucial to build up adaptive and transformative capacity. Mainstreaming resilience in social protection programme means, therefore, including interventions that strengthen the three components (resistance, adaptability, transformability) of households and communities, not simply their adaptability. It is interesting to make the connection here with the conclusions highlighted from the BRAC’s CFPR-TUP programme where the positive impacts in relation to graduation were related to the fact that the programme combines protective, preventative, promotional and transformative measures, and that these were shown to support the three dimensions of resilience: stability, adaptation and transformation.

The last point on graduation points to another important issue. When resilience is used to support a growth agenda, as is the case with social protection and graduation, it is important to remember that although interventions can support resilience, it is not their central aim. The primary objective of social protection is to reduce poverty and manage vulnerability. Supporting the growth agenda by promoting resilience to enable graduation is a secondary objective and part of a growth rather than a poverty reduction agenda. Many social

protection programmes (for example the PSNP) however, have graduation as a central aim. Politics play an important part in cases like this, where concerns over dependency and recurrent expenditures on social protection drive the call for social protection to be 'productive' and 'graduate' beneficiaries off social protection schemes. Others, however, take a different view. The programme Bolsa Familia in Brazil, for example, does not include graduation as a central aim as it was felt it is important to make a distinction between graduation which is seen as an economic and growth intervention, and poverty and vulnerability reduction which are more social policy objectives. This discourse on the politics and policy choices made in relation to resilience and graduation is not well articulated and documented in the current graduation literature but is a question that needs to be examined further.¹⁵

Perhaps the biggest potential danger with respect to resilience is that it starts to become the new (ruling) paradigm imposed by policy makers and donors as a compulsory component of each and every project they fund or support. In that sense some would fear the emergence of a 'new tyranny', as it has been the case with the participatory approach (Cooke and Kothari 2001).

There is therefore an urgent need amongst donor, academics and practitioners to recognise that resilience is neither good, nor bad. Or more correctly, that it can be good but it can also be bad. It would be extremely useful for instance to start talking about 'bad resilience' (the same way that people were/are talking about good or bad governance). A 'good' example of 'bad resilience' would be a long-standing and authoritarian regime which manages to maintain its authority over a country despite many internal or external attempts to bring more democracy. By the very definition of resilience this regime is resilient. Of course if torture and repression have been the means by which the regime has maintained itself in power, this is a good but easy example of bad resilience. But what if this regime is the regime that emerged from the independence war and that maintained itself for the last 27 years essentially because a majority of rural poor farmers benefited from the agrarian reform that it had initially introduced? If you are a poor farmer, the regime resilience may appear positive. If you are a young well-educated student who was raised in a city and dreams of rapid economic changes, the resilience of the old, clientelistic regime may look slightly more negative.

As a corollary, resilience should not be used as a normative concept to characterise intervention objectives, even if talking about 'strengthening disaster-resilient communities', or 'building climate-resilient infrastructure' sounds initially 'right'. At the present time however, there seems to be a tendency to 'romanticise' the concept of resilience, and a growing number of non-governmental and/or international development organisations seem to have adopted 'building' or 'strengthening resilience' as the new ultimate objective of development. This form of 'positivism' is dangerous for several reasons. First, because, as we just showed, it may not always be possible to determine whether resilience is good or bad. Second, because there is some risk of manipulation (conscious and intended apolitisation of the issue). In particular in the context of climate change adaptation there is a real danger of misuse, or abuse of the term, as it seems to be increasingly co-opted to accommodate rather than challenge forms of development that are implicated in human-caused climate change

¹⁵ A forthcoming Community of Practice on graduation, to be hosted by the Centre for Social Protection at IDS in the last quarter of 2012, will explore this issue of the politics of graduation in more detail.

and other global environmental problems: 'Let's continue business as usual, but make sure that communities are more resilient to the shocks created by our model of economic development.' Third, because this 'positivisation' of the concept of resilience may also increase the chance of genuine (naïve) ignorance of the potential risk of negative (bad) resilience and create more harm than positive change. Increasing the resilience of a group of households is not usually a neutral intervention. It may be at the expenses of another group. Introducing institutional, economic or social changes in the name of resilience building is likely to create winners and losers, and ignoring the politics of resilience will lead to disappointment, false expectation, or even conflicts.

In relation to poverty and the potential use of resilience as a normative concept in the domain of human development, a closer look reveals also that there is no relation between poverty alleviation and resilience building. Resilience is poor-neutral; in other words, it is not a pro-poor concept; nothing in it makes it specifically linked to the poor (except perhaps that the poor are often presented/assumed to be more vulnerable, or less resilient, than others). And this last assumption is exactly where the concept of resilience starts falling apart. Indeed, in contrary to what people seem to believe, households can be very poor and very resilient. In fact many empirical social and anthropological studies suggest that to be poor and to survive you almost certainly have to be resilient (e.g. Sen 1999; Wood 2003). This means that the whole discourse about how it is important to build resilience as a tool for poverty alleviation is flawed: there is no direct and obvious way out of poverty through resilience. Ultimately, development should therefore remain about poverty alleviation and wellbeing, not about resilience building. In that context redirecting part of the (decreasing) development effort and resources toward resilience may indirectly be detrimental from a poverty alleviation perspective.

One way out of this fate would be to ensure that resilience analysis takes into account agency, inequity and the power dynamics (the issue of losers and winners) that explain why and how increasing one person's resilience may be at the detriment of another's. There are some early conceptual attempts to couple theories of resilience and power as this paper has shown, but these are ad-hoc. Another way to bring these power and inequity concerns more systematically into resilience thinking would be to incorporate them directly into the definition of resilience, and to recognise that resilience can be good or bad. A definition that captures those elements would be one where:

'Good Resilience is the ability of a system to accommodate positively adverse changes and shocks, simultaneously at different scales and with consideration of all the different components and agents of the system, through the complementarities of its absorptive, adaptive and transformative capacities'.

Aside from incorporating distributional issues between different components at different scales, this definition also makes explicit reference to good resilience (thus implicitly distinguishing between good and bad resilience) and captures some of the earlier points made in this paper, in particular the fact that resilience emerges from the interactions between its three dimensions (buffer capacity, adaptability and transformability). Building on this definition, an appropriate resilience-centred programme becomes one that (a) fosters synergies and complementarities between the three components of resilience instead of simply focusing on one of these components possibly at the detriment of the others, and (b)

considers issues of impacts of shocks but also impact of resilience interventions across the different groups and different components of the system, at different scales.

11. Take-home messages for practitioners and policy makers

What are the take-home messages that this analysis suggests for policy makers and practitioners working on resilience? We identified seven main ones:

- Resilience thinking can help better incorporate the social-ecological linkages between the vulnerable groups and ecological services on which they depend, thus contributing to a more adequate targeting of (future) vulnerable groups.
- By emphasizing the importance of scale and boundaries, resilience also offers some value for social protection in relation to 'spatial' processes, such as rural-urban, or trans-boundary, migration.
- Being a term that is used (loosely) in a large number of disciplines, resilience can be a very powerful integrating concept that brings different communities of practice together.
- Although it is appealing, one should not rely on the term too heavily. It is not a panacea and certainly not the new catch all for development. Instead, it needs to be considered more carefully, especially with the recognition of 'good' and 'bad' resilience.
- On the basis of this, practitioners need to step back, consider the objectives of their interventions and then consider how resilience may support or actually hinder these objectives.
- In particular, a resilience-based systems approach might end up leading us towards abandoning interest in the poor(est) for the sake of system level resilience.
- The politics of resilience (who are the winners who are the losers of 'resilience interventions') need to be recognised and integrated more clearly into the current discussion.

Bibliography

- Adato, M., de la Briere, B. Mindek, D. and Quisumbing, A.R. (2000) *The Impact of PROGRESA on Women's Status and Intra-household Relations*, International Food Policy Research Institute, available at www.ifpri.org/publication/impact-progresa-womens-status-and-intra-household-relations (accessed 10 August 2012)
- Adger, N. W. (2003) 'Social Capital, Collective Action, and Adaptation to Climate Change', *Economic Geography* 79.4: 387-404.
- Adger, N.W. (2006) 'Vulnerability', *Global Environmental Change-Human and Policy Dimensions*, 16, 268-281
- Adger, N. W., Hughes, T. P., Folke, C., Carpenter, S. R. and Rockstrom, J. (2005) 'Social-ecological Resilience to Coastal Disasters', *Science* 309.5737:1036-1039.
- Agüero, J., Carter, M. and Woolard, I. (2007) *The Impact of Unconditional Cash Transfers on Nutrition: The South African Child Support Grant*, International Poverty Center, Working Paper No. 39, available at www.ipc-undp.org/pub/IPCWorkingPaper39.pdf (accessed 10 August 2012)
- Ahmed, S. M. (2009) 'Capability Development Among the Ultra-poor in Bangladesh: A case study', *Journal of Health Population and Nutrition* 27.4: 528-535
- Álvarez, C., Devoto, F. and Winters, P. (2008) 'Why do Beneficiaries Leave the Safety Net in Mexico? A Study of the Effects of Conditionality on Dropouts', *World Development* 36.4: 641-658
- Armitage, D., Béné C. Charles, A., Johnson, D. and Allison, E.H. (2012/13) 'The interplay of wellbeing and resilience concepts in applying a social-ecological systems perspective', *Ecology & Society* (in press)
- AusAID (2007) *Aid and the Environment: Building Resilience, Sustaining growth*, an environment strategy of the Australian Aid Australian Agency for International Development, Canberra, available at www.ausaid.gov.au/Publications/Pages/4121_7933_3453_1780_7334.aspx (accessed 11 August 2012)
- Azuara, O. (2009) *Does Poverty Alleviation Increase Migration? Evidence from Mexico* Paper. 17599, available at http://mpra.ub.uni-muenchen.de/17599/1/CCT_Migration.pdf [accessed 10/08/2012]
- Bahadur, A. V., Ibrahim, M. and Tanner, T. (2010) *The Resilience Renaissance? Unpacking of Resilience for Tackling Climate Change and Disasters*, CSR Discussion Paper No.1, Strengthening Climate Resilience programme, Brighton: IDS, available at <http://community.eldis.org/.59e0d267/resilience-renaissance.pdf> (accessed 11 August 2012)
- Barbier E.B. (2010) *A Global Green New Deal*. Cambridge: Cambridge University Press.
- Barrett, C. and McPeak, J. (2005) 'Poverty Traps and Safety Nets', in Alain de Janvry and Ravi Kanbur (eds), *Poverty, Inequality and Development: Essays in Honor of Erik Thorbecke*, Amsterdam: Kluwer
- Barrientos, A. and Sabates-Wheeler, R. (2009) *Do Transfers Generate Local Economy Effects?* Brooks World Poverty Institute Working Paper 106, available at

www.bwpi.manchester.ac.uk/resources/Working-Papers/bwpi-wp-10609.pdf (accessed 10/08/2012)

- Barrientos, A. and Nino-Zarazua, M. (2011) *Social Transfers and Chronic Poverty: Objective, Design, Reach and Impact*, Manchester: Chronic Poverty Research Centre, available at www.chronicpoverty.org/publications/details/social-transfers-and-chronic-poverty (accessed 11 August 2012)
- Behrman, J. R. and Hoddinott, J. (2005) 'Programme Evaluation with Unobserved Heterogeneity and Selective Implementation: The Mexican PROGRESA Impact on Child Nutrition', *Oxford Bulletin of Economics and Statistics* 67.4: 547-568
- Behrman, J. R. Parker, S. W. and Todd, P.E. (2005) *Long-Term Impacts of the Oportunidades Conditional Cash Transfer Program on Rural Youth in Mexico*, Ibero-America Institute for Economic Research Discussion Paper, Göttingen, Germany, available at <http://ideas.repec.org/p/qot/iaidps/122.html> (accessed 10/08/2012)
- Béné, C. (2011) 'Social Protection and Climate Change', *IDS Bulletin* 42.6: 67-70
- Béné, C. Devereux, S. and Sabates-Wheeler, R. (2012) *Shocks and social protection in the Horn of Africa: analysis from the Productive Safety Net programme in Ethiopia*, IDS Working Paper 395. Institute of Development Studies, Brighton: IDS
- Béné, C. E. L. Mills, D. Ovie, S. Raji, A. Tafida, A. Kodio, A. Sinaba, F. Morand, P. Lemoalle, J. and Andrew, N. (2011) 'Testing Resilience Thinking in a Poverty Context: Experience from the Niger River Basin', *Global Environmental Change* 21: 1173-1184.
- Berhane, G. J. Hoddinott, J. Kumar, N. Tafesse, A.S. Diressie, M.T. Yohannes, Y. Sabates-Wheeler, R. Handino, M. and Lind, J. (2011) *Evaluation of Ethiopia's Food Security Program: Documenting Progress in the Implementation of the Productive Safety Nets Programme and the Household Asset Building Programme*, Institute for Development Studies and the International Food Policy Research Institute, Brighton: IDS
- Berkhout F. (2008) 'Order in Socio-technical Systems: The Dark Side of Resilience', in Melissa Leach (ed) *Re-framing Resilience: a Symposium Report*, STEPS Working Paper 13, Brighton: IDS
- Berkes, F. & Folke, C. (eds) (1998) *Linking Social and Ecological Systems Management Practices and Social Mechanisms for Building Resilience*, Cambridge: Cambridge University Press
- Berkes, F. Colding, J. and Folke, C. (2003) *Navigating Social-Ecological Systems: Building Resilience for Complexity and Change*. Cambridge: Cambridge University Press.
- Berman, R. Quinn, C. and Paavola, J. (2012) 'The Role of Institutions in the Transformation of Coping Capacity to Sustainable Adaptive Capacity', *Environmental Development* 2: 86-100.
- Blaikie, P., Cannon, T., Davis, I. and Wisner, B. (1994) *At Risk: Natural Hazards, People's Vulnerability, and Disasters*. London: Routledge.
- Borrvall, C. Ebenman, B. Jonsson, T. and Jonsson, T. (2000) 'Biodiversity Lessens the Risk of Cascading Extinction in Model Food Webs', *Ecology Letter* 3.2: 131-136
- Boyd, E. Osbahr, H. Ericksen, P. Tompkins, E. Lemos, M.C. and Miller, F. (2008) 'Resilience and 'Climatizing' Development: Examples and policy implications', *Development* 51.3: 390-396
- Brooks, N., Grist, N. and Brown, K. (2009) 'Development Futures in the Context of Climate Change: Challenging the Present and Learning from the Past', *Development Policy Review* 27.6: 741-765

- Brown, K. (2011) 'Sustainable Adaptation: An Oxymoron?', *Climate and Development*, 3.1: 21-31
- Brown, D. and Kulig, J. (1996/97) 'The Concept of Resiliency: Theoretical Lessons From Community Research', *Health and Canadian Society* 4, 29–52, available at www.uleth.ca/dspace/bitstream/handle/10133/1275/JK%20-%20The%20Concept%20of%20Resiliency%20-%20Theoretical%20Lessons%20from%20Community%20Research.pdf?sequence=1 (accessed 11 August 2012)
- Cannon, T. and Muller-Mahn, D. (2010) 'Vulnerability, Resilience and Development Discourses in Context of Climate Change', *Natural Hazards* 55.3: 621-635.
- CARE (2012) Participatory Monitoring, Evaluation, Reflection and Learning for Community-based Adaptation: PMERL Manual, a Manual for Local Practitioners, CARE International, available at www.careclimatechange.org/files/adaptation/CARE_PMERL_Manual_2012.pdf (accessed 11 August 2012)
- Carpenter, S., Walker, B. Anderies, J. M. and Abel, N. (2001) 'From Metaphor to Measurement: Resilience of What to What?', *Ecosystems* 4.8: 765-781
- Carpenter, S. DeFries, R. Dietz, T. Mooney, H. Polasky, S. Reid, W. and Scholtes, R. (2006) 'Millennium Ecosystem Assessment: Research Needs', *Science* 314.5797: 257-258
- Carter, M. R. and Barrett, C.B. (2006). 'The Economics of Poverty Traps and Persistent Poverty: An Asset-based Approach', *Journal of Development Studies* 42.2: 178-199.
- Carter, M. Little, P. Mogue, T. and Negatu, W. (2007). 'Poverty traps and natural disasters in Ethiopia and Honduras', *World Development* 35.5: 835-856, available at www.careclimatechange.org/files/adaptation/CARE_PMERL_Manual_2012.pdf (last accessed 11 August 2012)
- Cash, D.W. Adger, W. Berkes, F. Garden, P. Lebel, L. Olsson, P. Pritchard, L. and Young, O. (2006) 'Scale and Cross-scale Dynamics: Governance and Information in a Multilevel World', *Ecology and Society* 11.2
- Cecchini, S. and Madariaga, A. (2011). *Programas de Transferencias Condicionadas: Balance de la Experiencia Reciente en América Latina y el Caribe*, Economic Commission for Latin America and the Caribbean (ECLAC/CEPAL), available at www.eclac.cl/cgi-bin/getProd.asp?xml=/publicaciones/xml/6/44126/P44126.xml&xsl=/dds/tpl/p9f.xsl (accessed 10 August 2012)
- Cooke, B. And Kothari, U. (eds) (2001). *Participation: The New Tyranny?* New York: Zed Books
- Coulthard, S. (2012) 'Can we be both Resilient and Well, and What Choices do People Have? Incorporating Agency into the Resilience Debate from a Fisheries Perspective', *Ecology and Society* 17.1:4
- Cutter, S. Barnes, L. Berry, M. Burton, C. Evans, E. Tate, E. and Webb, J. (2008) 'A Place-based Model for Understanding Community Resilience to Natural Disasters', *Global Environmental Change* 18.4: 598-606
- Das, N. C. and Shams, R. (2011) *Asset Transfer Programme for the Ultra-poor: A Randomised Control Trial Evaluation*, Challenging the Frontier of Poverty Reduction/BRAC Working paper, available at http://www.bracresearch.org/workingpapers/TUP_WP_22.pdf (accessed 10 August 2012)

- Davidson, D. J. (2010) 'The Applicability of the Concept of Resilience to Social systems: Some Sources of Optimism and Nagging Doubts', *Society & Natural Resources* 23.12: 1135-1149
- Davies, M. Béné C. Arnall, A., Tanner, T. Newsham, A. and Coirolo, C. (2012) 'Promoting Resilient Livelihoods Through Adaptive Social Protection: lessons from 124 programmes in South Asia', *Development Policy Review* (in press)
- de Janvry, A. Finan, F. E. Sadoulet, E. (2004) 'Can Conditional Cash Transfers Serve as a Safety Nets to Keep Children at School and out of the Labour Market', *Journal of Development Economics* 79.2: 349-373
- Department for International Development (DFID) (2011) *Defining Disaster Resilience: A DFID Approach Paper*, London: DFID, available at www.dfid.gov.uk/Documents/publications1/Defining-Disaster-Resilience-DFID-Approach-Paper.pdf (accessed 11 August 2012)
- Department for International Development (DFID) (2004) *Disaster Risk Reduction: A Development Concern. A Scoping Study on Links between Disaster Risk Reduction, Poverty and Development*, London: DFID
- Dercon, S. Hoddinott, J. and Woldehanna, T. (2005) 'Shocks and Consumption in 15 Ethiopian Villages, 1999-2004', *Journal of African Economies* 14.4: 559-585, available at http://www.economics.ox.ac.uk/members/stefan.dercon/shocks_ethiopia.pdf (accessed 11 August 2012)
- Dessai, S. and Wilby, R. L. (2010) *How Can Developing Country Decision Makers Incorporate Uncertainty about Climate Risks into Existing Planning and Policymaking Processes?* World Resource Report, available at www.worldresourcesreport.org/files/wrr/papers/wrr_dessai_and_wilby_uncertainty.pdf (accessed 11 August 2012)
- Devereux, S. and Sabates-Wheeler, R. (2004) *Transformative Social Protection*. IDS Working Paper 232, Brighton: IDS
- Devereux, S. Sabates-Wheeler, R. Slater, R., Brown, T. and Teshome, A. (2008). *Ethiopia's Productive Safety Net Programme (PSNP): 2008 Assessment Report*. Brighton: IDS
- Devereux, S. (2010a) *Building Social Protection Systems in Southern Africa*, European Report on Development, available at <http://erd.eui.eu/media/BackgroundPapers/Devereaux%20-%20BUILDING%20SOCIAL%20PROTECTION%20SYSTEMS.pdf> (accessed 10 August 2012)
- Devereux, S. (2010b) 'Seasonal Food Crisis and Social Protection in Africa', in Barbara Harriss-White B. and Judith Heyer J (eds.) *The Comparative Political Economy of Development - Africa and South Asia* (pp.111-135) Routledge, Taylor & Francis Group
- Dodman, D. Ayers, J. and Huq, S. (2009) 'Building Resilience', in Worldwatch Institute (ed) *State of the World 2009: Into a Warming World*, Washington DC: Worldwatch Institute
- Duffy, R. (2000) *Killing for Conservation: Wildlife Policy in Zimbabwe*, Oxford: James Currey
- Duflo, E. (2003) 'Grandmothers and Granddaughters: Old-Age Pensions and Intra-household Allocation in South Africa', *The World Bank Economic Review* 17.1: 1-25
- Duit, A. Galaz, V. (2008) 'Governance and Complexity—Emerging Issues for Governance Theory', *Governance* 21.3: 311–335, available at http://lowres.stockholmresilience.org/download/18.39aa239f11a8dd8de6b800026687/DuitGalaz_Governance_2008.pdf (accessed 11 August 2012)
- Duit, A. Galaz, V. and Eckerberg, K. (2010) 'Governance, Complexity, and Resilience', *Global Environmental Change* 20.3: 363-368

- Dulal, H. Brodnig, G. Onoriose, C.G. and Thakur, H.K. (2010) *Capitalising on Assets: Vulnerability and adaptation to Climate Change in Nepal*, Washington DC, World Bank.
- du Toit, A. and Neves, D. (2009) *Trading on a Grant: Integrating Formal and Informal Social Protection in Post-Apartheid Migrant Networks*, Brooks World Poverty Institute, available at <http://www.bwpi.manchester.ac.uk/resources/Working-Papers/bwpi-wp-7509.pdf> (accessed 10 August 2012)
- du Toit, A. and Neves, D. (2006) *Vulnerability and Social Protection at the Margins of the Formal Economy: Case Studies from Khayelitsha and the Eastern Cape*, Institute for Poverty, Land and Agrarian Studies (PLAAS), USAID and Chronic Poverty Research Centre (CPRC)
- Eakin, H. (2005) 'Institutional change, climate risk, and rural vulnerability: Cases from Central Mexico', *World Development*, 33, 1923-1938
- Eakin, H. & Luers, A. L. (2006) *Assessing the Vulnerability of Social-Environmental Systems* [Online]. Available: <http://arjournals.annualreviews.org/doi/abs/10.1146/annurev.energy.30.050504.144352>
- Escobar Latapi, A. and Gonzalez de la Rocha, M. (2008) 'Girls, Mothers, and Poverty Reduction in Mexico: Evaluating Progres-a-Oportunidades', in Shahra Razavi (ed) *The Gendered Impacts of Liberalization: Towards Embedded Liberalism?* United Nations Research in Social Development, New York: Routledge
- Fernald, L. C. H. Gertler, P. J. and Neufeld, L.M. (2008) 'Role of Cash in Conditional Cash Transfer Programmes for Child health, Growth, and Development: an Analysis of Mexico's Oportunidades', *Lancet* 371: 828-837
- Folke, C., Hahn, T. Olsson, P. Norberg, J. (2005) Adaptive Governance of Social-ecological Systems, *Annual Review of Environment and Resources* 30: 441-473
- Folke, C. (2006) 'Resilience: The Emergence of a Perspective for Social-ecological Systems Analyses', *Global Environmental Change* 16.3: 253-267
- Folke, C. Chapin III, F.S. and Olsson, P (2009) 'Transformations in Ecosystem Stewardship', in F. Stuart Chapin III, Gary P. Kofinas and Charles Folke (eds) *Principles of ecosystem stewardship: resilience-based natural resource management in a changing world*, New York: Springer Verlag
- Folke, C., Carpenter, S. R. Walker, B. Scheffer, M. Chapin, T. and Rockström, J. (2010) 'Resilience Thinking: Integrating Resilience, Adaptability and Transformability', *Ecology & Society* 15:4 www.ecologyandsociety.org/vol15/iss4/art20/ (accessed 16 April 2012).
- Fryer, D. (2011) *Neoliberalism and Social Spending*, paper presented at 'Social protection for social justice' conference at the Centre for Social Protection, Brighton: IDS (Unpublished)
- Gallopín, G. C. (2006) 'Linkages between vulnerability, resilience, and adaptive capacity', *Global Environmental Change-Human and Policy Dimensions*, 16, 293-303
- Gertler, P. (2004) 'Do Conditional Cash Transfers Improve Child Health? Evidence from PROGRESA's Control Randomised Experiment', *The American Economic Review* 94.2: 336-341
- Gertler, P. Martinez, S. Rubio, M. (2005) *Investing Cash Transfers to Raise Long Term Living Standards* available at http://emlab.berkeley.edu/users/webfac/emiguel/e271_s05/investing.pdf (accessed 11 August 2012)

- Gibson, C. Ostrom, E. and Ahn, T. K. (2000) 'The Concept of Scale and the Human Dimensions of Global Change: A Survey', *Ecological Economics* 32.3: 217-239
- Giddens, A. (1984) *The Constitution of Society - Outline of the Theory of Structuration*, Berkeley: University of California Press
- Gilligan, D. O. Hoddinott, J. and Tafesse, A.S. (2008) *The Impact of Ethiopia's Productive Safety Net Programme and its Linkages*, International Food Policy Research Center, available at www.csaee.ox.ac.uk/conferences/2008-EDiA/papers/391-Tafesse.pdf (accessed 10 August 2012)
- Gitter, S. R. Manley, J. Barham, B. (2011) *The Coffee Crisis, Early Childhood Development, and Conditional Cash Transfers*, Inter-American Development Bank, available at www.iadb.org/intal/intalcdi/PE/2011/08099.pdf (accessed 10 August 2012)
- Godfrey Wood, R. (2011) 'Is There a Role for Cash Transfers in Climate Change Adaptation?' *IDS Bulletin* 42.6: 79-85, Brighton: IDS
- Grist, N. (2008) 'Positioning Climate Change in Sustainable Development Discourse. *Journal of International Development*, 20.6: 783-803
- Grosh, M. Del Ninno, C. Tesliuc, E and Ouerghi, A. (2008) *For Protection and Promotion: The Design and Implementation of Effective Safety Nets*, Washington, DC, The World Bank, available at <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTSOCIALPROTECTION/EXTSAFETYNETSANDTRANSFERS/0,,contentMDK:21925478~pagePK:148956~piPK:216618~theSitePK:282761,00.html> (accessed 10 August 2012)
- Guhan, S. (1994) 'Social Security Options for Developing Countries', *International Labour Review* 133.1: 35-53
- Gunderson, L. H. and Holling, C. S. (2001) *Panarchy—Understanding Transformations in Systems of Humans and Nature*, Washington: Island Press
- Gunderson, L. and Folke, C. (2005) 'Resilience - Now More than Ever', *Ecology and Society* 10.2, available at www.ecologyandsociety.org/vol10/iss2/art22/ (accessed 11 August 2012)
- Harriss-White, B. (2005) 'Destitution and the Poverty of its Politics—With Special Reference to South Asia', *World Development* 33.6: 881-891
- Hashemi, S. M. and Umaira, W. (2011) *New Pathways for the Poorest: The Graduation Model from BRAC*. Centre for Social Protection, Brighton: IDS, available at www.ids.ac.uk/go/idspublication/new-pathways-for-the-poorest-the-graduation-model-from-brac (accessed 10 August 2012)
- Heltberg, R. (2007) 'Helping South Asia Cope Better with Natural Disasters: The Role of Social Protection', *Development Policy Review* 25.6: 681-698
- Heltberg, R. Siegel, P. S. & Jorgensen, S. L. (2009) 'Addressing Human Vulnerability to Climate Change: Towards a "No-regrets" Approach', *Global Environmental Change* 19.1: 89-99
- Hertel T.W. and Rosch S.D. (2010) 'Climate Change, Agriculture, and Poverty', *Applied Economic Perspectives and Policy*, 32.3: 355-385
- Hoddinott, J. and Skoufias, E. (2004) *The Impact of PROGRESA on food consumption*, available at <http://siteresources.worldbank.org/EXTLACREGTOPPOVANA/Resources/HoddinottSkoufiasimpactofprogresanonfoodconsumption.pdf> (accessed 10 August 2012)
- Hoddinott, J. Berhane, G. Kumar, N. Tafesse, A. S. Diressie, M. T. Yohannes, Y. Sabates-Wheeler, R. Handino, M. Lind, J. and Tefera, M. (2011) *Evaluation of Ethiopia's food*

- Security Program: Documenting Progress in the Implementation of the PSNP (Productive Safety Net Program) and HABP (Household Asset Building Program)*
Washington DC: International Food Policy Research Institute.
- Holling, C. S. (1973) 'Resilience and Stability of Ecological Systems', *Annual Review of Ecology and Systematics* 4: 2-23, available at www.iiasa.ac.at/Admin/PUB/Documents/RP-73-003.pdf (accessed 11 August 2012)
- Hornborg, A. (2009) 'Zero-sum World: Challenges in Conceptualizing Environmental Load Displacement and Ecologically Unequal Exchange in the World-system', *International Journal of Comparative Sociology* 50.3-4: 237-262, available at www.lucid.lu.se/Hornborg_2009_zero_sum_world.pdf (accessed 11 August 2012)
- Hossain, N. and Matin, I. (2007) 'Engaging Elite Support for the Poorest? BRAC's Targeted Ultra-Poor Programme for Rural Women in Bangladesh', *Development in Practice* 17.3: 380-392
- Hulme, D. and Moore, K. (2007) *Assisting the Poorest in Bangladesh: Lessons from Brac's 'Targeting the Ultra-poor' Programme*, Brooks World Poverty Institute, Manchester: BWPI, available at www.bwpi.manchester.ac.uk/resources/Working-Papers/bwpi-wp-0107.pdf (accessed 10 August 2012)
- International Labour Organisation (ILO) (2010) *Effects of Non-contributory Social Transfers in Developing Countries: A Compendium*, Geneva: International Labour Office, Social Security Department.
- Intergovernmental Panel on Climate Change (IPCC) (2001) *A Report of Working Group II, Climate Change 2001: Impacts, Adaptation, and Vulnerability*, McCarthy, J.J. Canziani, O.F. Leary, N.A. Dokken, D.J. White, K.S. (eds) Cambridge, UK: Cambridge University Press
- Intergovernmental Panel on Climate Change (IPCC) (2012) *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation. A Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change*, Field, C.B. Barros, V. Stocker, T.F. Qin, D. Dokken, D.J. Ebi, K.L. Mastrandrea, M.D. Mach, K.J. Plattner, G-K. Allen, S.K. Tignor, M. and Midgley, P.M. (eds) Cambridge, UK: Cambridge University Press
- Interagency Resilience Working Group, (2012) *The Characteristics of Resilience Building A*, Interagency Resilience Working Group discussion paper, available at <http://community.eldis.org/resiliencewg/> (accessed 11 August 2012)
- Jones, L. Jaspars, S. Pavanello, S. Ludi, E. Slater, R. Arnall, A. Grist, N. & Mtisi, S. (2010) *Responding to a Changing Climate: Exploring How Disaster Risk Reduction, Social Protection and Livelihoods Approaches Promote Features of Adaptive Capacity* Overseas Development Institute (ODI) Working Paper 319, London: ODI, available at www.odi.org.uk/resources/docs/5860.pdf (last accessed 11 August 2012)
- Kegan, R. and Lahey, L.L. (2009) *Immunity to Change: How to Overcome it and Unlock the Potential in Yourself and Your Organization*, Boston, MA: Harvard Business Press.
- Klein, R. J. T., Nicholls, R. J. & Thomalla, F. (2003) 'Resilience to natural hazards: How useful is this concept?' *Environmental Hazards*, 5, 35-45
- Kuriakose, A. Heltberg, R. Wiseman, W. Costella, C. Ciprik, R. & Cornelius, S. (2012) *Climate Responsive Social Protection: Background Paper for the World Bank's New Social Protection Strategy*, Washington DC: World Bank Social Development and Social Protection
- Leach, M. (2008) *Re-framing Resilience: A Symposium Report*, STEPS Working Paper 13, Brighton: IDS

- Leichenko, R. & O'Brien, K. (2008) *Environmental Change and Globalization: Double Exposures*, Oxford, Oxford University Press.
- Levine, S. Ludi, E. & Jones, L. (2011) *Rethinking Support for Adaptive Capacity to Climate Change - The Role of Development Interventions*, A report for the Africa Climate Change Resilience Alliance, London: Overseas Development Institute
- Lister, R. (2004) *Poverty*, Cambridge, Polity Press.
- Makiwane, M. (2010) 'The Child Support Grant and Teenage Childbearing in South Africa', *Development Southern Africa*, 27.2: 193-204.
- Makiwane, M. and Udjo, E. (2006) *Is the Child Support Grant Associated with an Increase in Teenage Fertility in South Africa? Evidence from National Surveys and Administrative data*. Pretoria, Human Sciences Research Council, available at www.hsrc.ac.za/Document-2027.phtml (accessed 10 August 2012)
- Manyena, S. B. (2006) 'The Concept of Resilience Revisited', *Disaster* 30.4: 433-450
- Matin, I. M. Sulaiman, and Rabbani, M. (2008) *Crafting a Graduation Pathway for the Ultra-poor: Lessons and Experiences from a BRAC Programme*, Chronic Poverty Research Centre, available at <http://p31.itcilo.org/entdev/synergies/en/graduation-programs/crafting-a-graduation-pathway-for-the-ultra-poor-lessons-and-evidence-from-a-brac-programme.-matin-sulaiman-and-mehnaz-2008> (accessed 10 August 2012)
- McLaughlin, P., and Dietz, T. (2007) 'Structure, Agency and Environment: Toward an Integrated Perspective on Vulnerability', *Global Environmental Change* 39.4:99-111
- Milenio (2012). *Sedesol: 20,000 Raramuris, Fuera de Oportunidades*, available at <http://www.milenio.com/cdb/doc/impreso/9102400>
- Miller, F. Osbahr, H. Boyd, E. Thomalla, F. Bharwani, S. Ziervogel, G. Walker, B. Birkmann, J. Van der Leeuw, S. Rockström, J. Hinkel, J. Downing, T. Folke, C. and Nelson, D. (2010) 'Resilience and Vulnerability: Complementary or Conflicting Concepts?' *Ecology and Society* 15.3: 11
- Mitchell, T. & Harris, K. (2012). *Resilience, a Risk Management Approach*, Background note, London: Overseas Development Institute, available at www.dochas.ie/Shared/Files/4/Resilience_a_risk_management_approach.pdf (accessed 11 August 2012)
- Moench, M.; Tyler, S. and Lage, J. (eds) (2011) *Catalyzing Urban Climate Resilience: Applying Resilience Concepts to Planning Practice in the ACCCRN Program (2009–2011)*, Institute for Social and Environmental Transition, Available from <http://www.i-s-e-t.org/publications> (accessed September 2012)
- Molyneux, M. (2006) 'Mothers and the Service of the New Policy Agenda: Progres/Oportunidades, Mexico's Conditional Transfer Programme', *Social Policy and Administration*, 40.4: 425-449
- Moser S.C. and Ekstrom J. (2010) 'A Framework to Diagnose Barriers to Climate Change Adaptation', *PNAS* 107: 22026–22031
- Moser, C. Norton, A. Stein, A. and Georgieva, S. (2010) *Pro-poor Adaptation to Climate Change in Urban Centres: Case Studies of Vulnerability and Resilience in Kenya and Nicaragua*, Report No. 54947-GLB, Washington, World Bank, Social Development Department, available at http://siteresources.worldbank.org/EXTSOCIALDEVELOPMENT/Resources/244362-1232059926563/5747581-1239131985528/ESW_propoorurbanadaptationReport4947GLBweb2.pdf (accessed 11 August 2012)

- Mosse, D. (2004). 'Is Good Policy Unimplementable? Reflections on the Ethnography of Aid Policy and Practice', *Development and Change*, 35, 639-671
- Mosse, D. (2005). *Cultivating Development: An ethnography of aid policy and practice*, London, Pluto Press.
- Nelson, D.R. Adger, W.N. and Brown, K. (2007) 'Adaptation to Environmental Change: Contributions of a Resilience Framework', *Annual Review of Environment and Resources*, 32.1: 395-419
- Neufeld, L. C. Steta, Rivera, J. Valle, A.M. Grados, R. Uriega, S. López, V.H. (2011) 'Evaluation for Decision Making: A Case Study of the Oportunidades programme in Mexico', *The Journal of Nutrition* 141.11: 2076-83
- Neves, D. Samsom, M. van Niekerk, I. Hlathswayo, S. and Du Toit, A. (2009) *The Use and Effectiveness of Social Grants in South Africa*, Institute for Poverty, Land and Agrarian Studies (PLAAS) and Economic Policy Research Institute (EPRI), available at www.wahenga.org/node/1868 (accessed 10 August 2012)
- New, M. D. Liverman, Betts, R.A. Anderson, K.L. West C.C. (2011) 'Four Degrees and Beyond: The Potential for a Global Temperature Increase of Four Degrees and its Implications', *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences* 369.1934: 6-19.
- Newsham, A. Davies, M. and Béné C. (2011) Background Paper prepared for the International workshop 'Making Social Protection Work for Pro-Poor Disaster Risk Reduction and Climate Change Adaptation', 14-17 March 2011, Addis Ababa
- North, D.C. (1990) *Institutions, Institutional Change and Economic Performance*, Cambridge: Cambridge University Press.
- North, D.C. (2005) *Understanding the Process of Economic Change*. Princeton University Press, Princeton.
- Norris, F. Stevens, S. Pfefferbaum, B. Wyche, K. and Pfefferbaum, R. (2008) 'Community Resilience as Metaphor, Theory, Set of Capacities, and Strategy for Disaster Readiness', *American Journal of Community Psychology* 41.1-2: 127-150
- O'Brien, K. (2011) 'Global Environmental Change: From Adaptation to Deliberate Transformation', *Progress in Human Geography*
- O'Brien, K. Leichenko, R. Kelkar, U. Venema, H. Aandahl, G. Tomkins, H. Javed, A. Bhadwal, S. Barg, S. Nygaard, L. and West, J. (2004) 'Mapping Vulnerability to Multiple Stressors: Climate Change and Globalisation in India', *Global Environmental Change* 14: 303-313
- Osbah, H. (2007) 'Building Resilience: Adaptation Mechanisms and Mainstreaming for the poor', Occasional Paper for the *Human Development Report 2007/08 Fighting climate change: Human Solidarity in a Divided World*, Human Development Report Office, UNDP
- Osbah, H., Twyman, C. Adger, W. N. and Thomas, D. S. G. (2008) 'Effective Livelihood Adaptation to Climate Change Disturbance: Scale Dimensions of Practice in Mozambique', *Geoforum* 39.6: 1951-1964.
- Oxfam America (2004) *Weathering the Storm: Lessons in Risk Reduction from Cuba*, Washington, D.C.: Oxfam America, available at www.walterlippmann.com/oxfam-america-cuba-weathering-the-storm.pdf (accessed 11 August 2012)
- Parker, S. W. and Skoufias, E. (2000) *El Impacto de Progresión Sobre el Trabajo, el Ocio y el Uso del Tiempo*, Washington D.C., International Food Policy Research Institute, available at www.ifpri.org/node/2053 (accessed 10 August 2012)

- Pelham, L. Clay, E. and Brunholz, T. (2011) *Natural disasters: What is the Role of Safety nets?* World Bank Social Protection and Labor discussion paper No. 1102, available at <http://siteresources.worldbank.org/SOCIALPROTECTION/Resources/SP-Discussion-papers/Safety-Nets-DP/1102.pdf> (Accessed 16 August 2012)
- Pelling, M. (2011) *Adaptation to Climate Change: From Resilience to Transformation* Abingdon: Routledge
- Pelling, M. & Manuel-Navarrete D. (2011) 'From Resilience to Transformation: The Adaptive Cycle in Two Mexican Urban Centers', *Ecology and Society* 16.2: 11 available at www.ecologyandsociety.org/vol16/iss2/art11/ (accessed 11 August 2012)
- Perrings, C. (1995) 'Biodiversity Conservation as Insurance', in Swanson, T. *The Economics and Ecology of Biodiversity Decline* Cambridge: Cambridge University Press
- Pfefferbaum, B. Reissman, D. Pfefferbaum, R. Klomp, R., and Gurwitsch, R. (2005) 'Building Resilience to Mass Trauma Events', in Linda S. Doll, Sandra E. Bonzo, David A. Sleet, and James A. Mercy (eds) *Handbook on Injury and Violence Prevention Interventions* New York: Kluwer Academic Publishers
- Posgate, D. Craviolatti, P. Hossain, N. Osinski, P. Parker, T. and Sultana, P. (2004) 'Review of the BRAC/CFPR Specially Targeted Ultra-Poor (STUP) Programme: Mission Report', unpublished report, Dhaka: BRAC Donor Liaison Office
- Rabbani, M. Prakash, V.A. Sulaiman, M. (2006) *Impact Assessment of CFPR/TUP: A Descriptive Analysis Based on 2002-2005 Data*, Challenging the Frontiers of Poverty Reduction/Targeting the Ultra-Poor (CFPR/TUP) Working papers, BRAC, available at www.bracresearch.org/working_papers_details.php?scat=28&tid=355&v= (accessed 10 August 2012)
- Ramirez-Silva, I. Rivera, J. Leroy, J.L. (2008) 'Effects of the Mexican program Oportunidades on the Dietary Intake of Energy, Iron, Zinc and Vitamin A in Children 1 to 4 years Old in Rural Areas', *Journal of the American Societies for Experimental Biology (FASEB)* 677.1
- Resilience Alliance (2012) *Research on Resilience in Social-ecological Systems - A Basis for Sustainability*, www.resalliance.org/
- Sabates-Wheeler, R. and Devereux, S. (2010) 'Cash Transfers and High Food Prices: Explaining Outcomes on Ethiopia's Productive Safety Net Programme', *Food Policy* 35.4: 274-285
- Sabates-Wheeler, R. Devereux, S. Guenther, B. (2009) *Building Synergies Between Social Protection and Smallholder Agriculture Policies*, Future Agricultures Working Paper No. SP01, available at www.future-agricultures.org/pdf%20files/Social_Protection/Working%20Paper%20No%20SP01-%20Agriculture%20&%20Social%20Protection%20in%20Africa.pdf (accessed 11 August 2012)
- Samson, M. Lee, U. A. Ndiebe, Mac Quene, K. van Niekerk, I. Gandhi, V. Hangaya, T. and Abrahams, C. (2004) *The Social and Economic Impact of South Africa's Social Security System: Final Report Executive summary*, Report commissioned by Economics and Finance Directorate. Cape Town, Economic Policy Research Unit, available at <http://allafrica.com/download/resource/main/main/idatcs/00010352:3ca37b223f2ad1b0dc6479ccca726034.pdf> (accessed 10 August 2012)
- Sen, A. K. (1999) *Development as Freedom*, Oxford: Oxford University Press
- Schultz, T. P. (2004) 'School Subsidies for the Poor: Evaluating the Mexican PROGRESA Poverty Program', *Journal of Development Economics* 74.1: 199-250

- Schwarz, A. M. Béné, C. Bennett, G. Boso, D. Hilly, Z. Paul, C. Posala, R. Sibiti, S. and Andrew, N. (2011) 'Vulnerability and Resilience of Rural Remote Communities to Shocks and Global Changes: Empirical Analysis From the Solomon Islands', *Global Environmental Change* 21.3: 1128-1140
- Shams, R. Mahmud, S. and Das, N.C. (2010). Integration of the Ultra-poor into Mainstream Development: How Effective is CFPR? Challenging the Frontiers of Poverty Reduction Working Paper No. 21, BRAC, available at www.bracresearch.org/workingpapers/cfpr_wp21_new.pdf (accessed 14 August 2012)
- Sienaert, A. (2007) *Migration, Remittances and Public Transfers: Evidence from South Africa*, University of Oxford, Department of Economics Discussion Paper Series No. 351, available at www.economics.ox.ac.uk/index.php/papers/details/migration_remittances_and_public_transfers_evidence_from_south_africa/ (accessed 11 August 2012)
- Smith, A. and Stirling, A. (2010) 'The Politics of Social-ecological Resilience and Sustainable Sociotechnical Transitions', *Ecology and Society* 15.1: 11
- Stecklov, G. Winters, P. Stampini, M. and Davis, B. (2005) 'Do Conditional Cash Transfers Influence Migration? A Study Using Experimental Data from the Mexican Progresa Program', *Demography* 42.4: 769-790
- Sulaiman, M. (2009) *BRAC's Challenging the Frontier of Poverty Reduction/Targeting Ultra Poor (CFPR/TUP) Programme in Bangladesh*, Powerpoint presentation, Swiss Agency for Development and Cooperation, Berne.
- Swiss Agency for Development and Cooperation (SDC) and World Food Programme (WFP) (2011) *Building Resilience: Bridging Food Security, Climate Change Adaptation and Disaster Risk Reduction*, available at http://www.preventionweb.net/files/24163_workshopbuildingresiliencecasestudi.pdf (accessed 11 August 2012)
- Tearfund (2005) *One Disaster Too Many: Why Thousands are Dying Needlessly Each Year in Preventable Disasters*, A Tearfund briefing for the World Conference on Disaster Reduction, 18-22nd January, Kobe, available at www.tearfund.org/webdocs/Website/Campaigning/Policy%20and%20research/BDS%20Kobe%20Jan%202005.pdf (accessed 11 August 2012)
- Teschl M. and Comim, F. (2005) Adaptive Preferences and Capabilities: Some Preliminary Conceptual Explorations, *Review of Social Economy*, 63.2: 229-247
- Thomas, D. S. G., Twyman, C. Osbahr, H. and Hewitson, B. (2007) 'Adapting to Climate Change and Variability in Southern Africa: farmer responses to intra-seasonal precipitation trends', *Climatic Change* 83.3: 301-322
- Todd, P. E., Gallardo-García, J. Behrman, J. Parker, S. (2005) 'Impacto de Oportunidades Sobre la Educación de Niños y Jóvenes de Áreas Urbanas Después de un Año de Participación en el Programa', in Bernardo Hernández Prado and Mauricio Hernández Avila (eds) *Evaluación Externa de Impacto del Programa Oportunidades 2004* Cuernavaca, Mexico, Instituto Nacional de Salud Pública
- Tran, M. (2012) 'BRAC Programme Lifting 'Ultra-poor' Out of Poverty in Bangladesh', *The Guardian*, available at www.guardian.co.uk/global-development/poverty-matters/2012/feb/13/brac-lifts-ultra-poor-out-poverty (accessed 10 August 2012)
- United Nations Office for Disaster Risk Reduction (UNISDR) (2012) *Making Cities Resilient, World Disaster Reduction Campaign*, www.unisdr.org/campaign/resilientcities/ (accessed 11 August 2012)
- USAID (2012) *Resilience at USAID*, available at <http://transition.usaid.gov/resilience/> (accessed 11 August 2012)

- Walker, B. Carpenter, S. Anderies, J. Abel, N. Cumming, G. S. Janssen, M. Levbel, L. N. J. Peterson, G. D. and Pritchard, R. (2002) 'Resilience Management in Social-ecological Systems: A Working Hypothesis for a Participatory Approach', *Conservation Ecology* 6.1: 14, available at www.ecologyandsociety.org/vol6/iss1/art14/ (accessed 11 August 2012)
- Walker, B. Holling, C. S. Carpenter, S. R. and Kinzig, A. (2004) 'Resilience, Adaptability and Transformability in Social-ecological Systems', *Ecology and Society* 9.2: 5, available at <http://www.ecologyandsociety.org/vol9/iss2/art5/> accessed 11 August 2012)
- Walker, B. H. Anderies, J. M., Kinzig, A. P. and Ryan, P. (2006) 'Exploring Resilience in Social-Ecological Systems Through Comparative Studies and Theory Development: Introduction to the Special Issue', *Ecology & Society* 11.1: 12, available at www.ecologyandsociety.org/vol11/iss1/art12/ (accessed 11 August 2012)
- Weitzman, M.L. (2000) 'Economic Profitability Versus Ecological Entropy', *Quarterly Journal of Economics* 115.1: 237–263
- Weichselgartner, J. (2001) 'Disaster Mitigation: the concept of vulnerability revisited', *Disaster Prevention and Management*, 10, 85-94
- Williams, M.J. (2007) *The Social and Economic Impacts of South Africa's Child Support Grant* BA Thesis, Williamstown, Massachusetts, available at http://web.williams.edu/Economics/Honors/2007/Williams_thesis.pdf (accessed 10 August 2012)
- Winters, P. and Davis, B. (2007) 'Designing a New PROCAMPO program: Lessons from *Oportunidades*', report presented to the Inter-American Development Bank for the project '*Mexico: Estudios sobre políticas y gastos public federal para el sector rural*.'
- Wisner, B., Blaikie, P., Cannon, T., and Davis, I., (2004) *At Risk: Natural Hazards, People's Vulnerability and Disasters*, second ed. Routledge, New York.
- Wood, G. (2003) 'Staying Secure, Staying Poor: The "Faustian Bargain"', *World Development* 31.3: 455-471
- World Bank (2011a) *Building Resilience and Opportunities*, World Bank's Social Protection and Labour Strategy 2012-2022. Washington DC: World Bank, available at http://siteresources.worldbank.org/SOCIALPROTECTION/Resources/280558-1274453001167/7089867-1279223745454/7253917-1291314603217/SP-L_Strategy_Consultation_Plan_EXT.pdf (accessed 11 August 2012)
- World Bank, (2011b) Social Protection and Climate Resilience – Report from an International Workshop (Addis Ababa 14-17 March 2011), The World bank Washington, available at http://siteresources.worldbank.org/EXTSOCIALDEVELOPMENT/Resources/244362-1232059926563/5747581-1239131985528/WBSocProtec_Final.pdf (accessed 11 August 2012)
- Young, O.R. (2010) *Institutional Dynamics: Emergent Patterns in International Environmental Governance*, Cambridge, MA: MIT Press
- Young, O, Berkhout, F. Gallopin, G. Janssen, M, Ostrom, E. and Vanderleeuw, S. (2006) 'The Globalisation of Socio-ecological Systems: An Agenda for Scientific Research', *Global Environmental Change* 16.3: 304-316
- Zimmerman, F. and Carter, M. (2003) 'Asset Smoothing, Consumption Smoothing and the Reproduction of Inequality Under Risk and Subsistence Constraints', *Journal of Development Economics* 72.2: 233-260