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ADVANCED REVIEW

Integrating social protection and climate change adaptation: A review

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Abstract

Policymakers are increasingly interested in how social protection is evolving in the context of climate change. This review assesses what the literature tells us about its role in facilitating adaptation in lower income countries. It also explores how far thinking on an integrated “adaptive social protection” (ASP) agenda considers transforming the socioeconomic and political contexts where vulnerability to climate change originates. The review finds that research to date focuses on how instruments such as cash or asset transfers can protect the poor from shocks and stresses, prevent households from falling into poverty as a result of climate change, and promote climate-resilient livelihoods. However, it cautions that such interventions must go beyond helping households to cope against shocks over short time horizons; they should enable the adoption of forward-looking strategies for long-lasting adaptation. Much less attention in the literature is given to whether social protection measures might have transformational effects for recipients. This is despite the fact that the earliest proponents of ASP favored a rights-based approach to social protection to address issues of inequality and marginalization which are at the root of poverty and vulnerability to climate change. Although the role of social protection should not be overstated, it holds promise as a tool for building adaptive capacity. However, the potential of ASP to be truly transformational for its recipients by tackling the structural causes of vulnerability to climate change is not yet harnessed by policymakers. This constitutes a missed opportunity for the agenda to deliver on the international community's promise to “leave no one behind.”

This article is categorized under:

Climate and Development > Sustainability and Human Well-Being
Vulnerability and Adaptation to Climate Change > Values-Based Approach to Vulnerability and Adaptation

KEYWORDS

climate change adaptation, poverty, resilience, safety nets, social protection

1 | INTRODUCTION

Social protection plays a prominent part in delivering the international community's promise to “leave no one behind” (International Labour Organization [ILO], 2017; United Nations, 2015). Lowder, Bertini, and Croppenstedt (2017) estimate

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that 2.1 billion people in developing countries, or one-third of the population in the developing world, are covered by some form of social protection today. Although social insurance and labor market protection also qualify as social protection, safety nets (or social assistance) are the predominant form of social protection in lower income countries (Barrientos, 2017; Lowder et al., 2017). According to the World Bank (2018), developing and transition countries spend on average 1.5% of GDP on social safety nets, even in sub-Saharan Africa where programs are in large part donor-funded.

Climate change poses new challenges for social protection. It threatens to not only hamper or reverse progress on poverty reduction and development, but also increase pressure on already highly stretched programs as more people are pushed into poverty (Béné, Devereux, & Sabates-Wheeler, 2012; Hallegatte et al., 2016; Olsson et al., 2014). However, climate change is also among likely “drivers of change” that will influence the future trajectory and shape of an ever-growing social protection agenda (Devereux, Roelen, & Ulrichs, 2016). Indeed, research on whether social protection can support the poor adapt to climate change has been emerging in recent years, capturing the interest of policymakers and adaptation practitioners.

Social protection has traditionally focused on strengthening economic, human and social capital for stimulating economic growth, yet advocates of a “rights-based” agenda have stressed that it should also address issues of social justice and marginalization (Devereux et al., 2016; Gentilini & Omamo, 2011). They argue that social protection has the transformative potential to help re-dress structural inequalities, which are embedded in sociopolitical contexts that lie at the root of poverty (Devereux et al., 2016; Merrien, 2013). Similarly, a growing body of research underlines the importance of adopting transformative pathways for adaptation that challenge the political, institutional and socioeconomic conditions through which vulnerability to climate change is produced (Eriksen, Nightingale, & Eakin, 2015; K. O'Brien, Eriksen, Nygaard, & Schjolden, 2007; Pelling, O'Brien, & Matyas, 2015). Social protection thus holds promise as a tool for adaptation, and moreover, one that aligns with critical perspectives on adaptation and development processes.

Based on the above, this review considers the following two questions:

1. What does the literature say about social protection's role in facilitating adaptation to climate change in lower income countries?
2. To what extent does current thinking on “adaptive social protection (ASP)” consider how it can help transform the socio-political contexts where vulnerability to climate change originates?

Section 2 introduces the two main perspectives on social protection in development circles and their similarities with adaptation policy debates, in order to understand the context within which the integrated “ASP” agenda is proposed. Section 3 presents the review methodology. Section 4 surveys the literature on how social protection might already contribute to climate change adaptation, which often serves as the basis for promoting ASP. Section 5 then considers how ideas around ASP are evolving, and Section 6 discusses how much attention is paid in this literature to the potential for ASP to realize transformational adaptation. The final section offers some conclusions.

2 | CONTEXT: APPROACHES TO SOCIAL PROTECTION AND PARALLELS WITH ADAPTATION POLICY DEBATES

2.1 | Growth-oriented and rights-based approaches to social protection

There has been a wide range of perspectives over the last two decades on how social protection (in the context of poverty alleviation) is best approached, “ranging from macroeconomic stabilizer to humanitarian responses, from risk management to promoting social justice” (Gentilini & Omamo, 2011, p. 329). Devereux et al. (2016) group these into two broad categories: those characterized by a growth-oriented approach and those following a rights-based approach.

The growth-oriented approach views social protection as an essential *instrument* for poverty reduction and economic development (Devereux et al., 2016). The World Bank, which is largely responsible for social protection's rapid rise in the development policy agenda, continues to be an extremely influential actor within this space. Advocating for an expansion of safety nets to “springboards” in the early 2000s, it introduced a “social risk management” framework for delivering social protection (Holzmann & Kozel, 2007; World Bank, 2001). As its name suggests, the framework emphasizes managing the risks faced by the poor against income and consumption shocks. In addition, it focuses on enabling the poor to engage in risky, though potentially high return activities or investments to support their gradual, long-term move out of poverty (Holzmann & Kozel, 2007; World Bank, 2001).

The starting point of the rights-based approach is that all members of society are entitled to a minimum level of social protection, the provision of which should be institutionalized within national policy and legislative frameworks (Devereux et al., 2016; ILO, 2017). While this approach implies a top-down provision of rights to passive recipients, Devereux and Sabates-

Wheeler (2004) go further to champion a “transformative social protection” framework that brings together rights, basic needs and empowerment goals (see Box 1). In their view, the dominant growth-oriented or risk management approach led by the World Bank has had a limited focus on *economic* protection against short-run shocks and livelihood risks and is based on too narrow a conceptualization of vulnerability; vulnerability is understood only in terms of income, consumption and assets. This, they argue, overlooks the important structural factors that affect vulnerability and chronic poverty, such as inequality and marginalization, which are embedded in sociopolitical contexts. They therefore add a “transformative” function for social protection, referring to “the pursuit of policies that integrate individuals equally into society, allowing everyone to take advantage of the benefits of growth, and enabling excluded or marginalized groups to claim their rights” (Sabates-Wheeler & Devereux, 2007, p. 24).

The growth-oriented (or risk management) and rights-based, transformative approaches to social protection are not necessarily at odds. The additional element proposed by Devereux and Sabates-Wheeler (2004) expands the scope and purpose of the agenda to actively reduce (rather than perpetuate) structural dimensions of vulnerability alongside economic ones (see Box 1), and provide support to the chronic poor as well as the transitory poor.

2.2 | Climate change adaptation and transformation

The call for a more holistic conceptualization of vulnerability is echoed in climate change adaptation literature. The first generation of adaptation policy and actions tended to interpret vulnerability to climate change too narrowly, by focusing on technocratic and managerial responses to biophysical hazards (K. O'Brien et al., 2007; Ribot, 2011; Watts, 2015). Inspired by critical adaptation scholarship, more recent “pro-poor” initiatives sought to correct this by taking into account how non-climatic stressors intersect with climate-related ones to shape vulnerability, and placing special emphasis on the micro-level risks to household livelihoods, assets and wellbeing (Adger, 2006; Heltberg, Siegel, & Jorgensen, 2009; Sherman et al., 2016). This has meant that the political, institutional and socioeconomic factors that affect relational vulnerability—i.e., why certain people are more vulnerable than others to the same hazard—are today receiving greater attention in adaptation policy circles.

Yet, regardless of whether they are technocratic or “pro-poor,” there is growing concern that adaptation efforts in the context of development continue to be characterized by time-bound, donor-driven projects, which only offer short-term palliatives to risk (Kates, Travis, & Wilbanks, 2012; K. O'Brien, 2012; Pelling, 2010; Pelling et al., 2015). They operate within existing social and political contexts, overlooking how these structures themselves can create and perpetuate entrenched inequalities

BOX 1 Four functions of social protection (“3P+T”)

There is no universally agreed definition for the term “social protection.” It is defined in overlapping ways by a growing set of actors (Brunori & O'Reilly, 2010; Norton, Conway, & Foster, 2001; Standing, 2007). Sabates-Wheeler and Devereux (2007) propose one definition that captures the range of functions that social protection can serve:

Social protection describes all initiatives that transfer income or assets to the poor, protect the vulnerable against livelihood risks, and enhance the social status and rights of the marginalized; with the overall objectives of extending the benefits of economic growth and reducing the economic or social vulnerability of poor, vulnerable and marginalized people (p. 25).

The authors propose a typology of (nonmutually exclusive) functions that social protection delivers, referred to as “3P+T” (Devereux & Sabates-Wheeler, 2004):

- *Protection*: Providing direct relief to individuals or households in a current state of deprivation;
- *Prevention*: Protecting those who are vulnerable to falling into deprivation as a result of a shock;
- *Promotion*: Enhancing income and capabilities in order to reduce people's future susceptibility to deprivation;
- *Transformation*: Addressing issues of equity and structural vulnerability to poverty.

The three “Ps” correspond neatly to the growth-oriented approach to social protection. The transformative function is integral to the framework the authors themselves propose for rights-based social protection.

and uneven power relations that are at the root of vulnerability to climate change (Eriksen et al., 2015; Olsson et al., 2014; Sherman et al., 2016; St. Clair, 2010; Tschakert, van Oort, St. Clair, & LaMadrid, 2013). Because they avoid disturbing the status quo, these efforts can only facilitate “incremental” adjustments to new risks—and the limits to such incremental adaptation are fast being reached (Kates et al., 2012; K. O'Brien, 2012; Pelling, 2010; Pelling et al., 2015).

A growing body of research argues that “transformation” must therefore be a necessary part of a society's long-term response to climate change. Transformation connotes a systemic shift from one major adaptation strategy to another, one that challenges the existing ecological, socioeconomic or institutional structures which underpin current adaptation (and development) choices (Folke et al., 2010; Kates et al., 2012; Manuel-Navarrete & Pelling, 2015; K. O'Brien, 2012; Rickards, 2013). While measures that do not disturb the stability or integrity of existing structures are not unimportant, Pelling et al. (2015) argue that harnessing the potential for transformation broadens policy options for adaptation. In fact, the cumulative effect of incremental adaptation efforts can itself be transformational—but limiting actions to incremental adjustments might also delay or hinder transformation, and in worse cases, lead to the adoption of strategies that are mal-adaptive in the long-run (Kates et al., 2012; Pelling et al., 2015; Tanner et al., 2015).

There are thus clear synergies between advocates of transformative social protection and those calling for transformation in the context of climate change adaptation. Both see a need to broaden the scope of their respective agendas to tackle the root causes of poverty and vulnerability. In particular, they question how the sociopolitical contexts within which social protection and adaptation actions are implemented might themselves be reinforcing entrenched power structures that lead to differentiated impacts of shocks within society. An integrated “ASP” agenda that embraces a rights-based, transformative approach to social protection by actively aiming to re-dress structural inequalities therefore has strong potential to open pathways for transformational adaptation.

3 | METHODS

The analysis of peer-reviewed papers is guided by Berrang-Ford, Pearce, and Ford (2015)'s framework for reviewing adaptation research. While the literature on social protection is vast—reflecting its prominent role in development—much less has been published on social protection specifically in the context of adaptation.

The first step in scoping the literature was to enter a keyword search string (see Box 2) into Scopus. This generated 79 results on social protection and adaptation, including 68 articles, two books, and nine book chapters. Analysis of abstracts allowed for immediate exclusion of 24 articles and three book chapters because they were not relevant to the research topic—i.e., they use the terms “social protection(s)” or “safety nets” in the broader sense, not specifically in reference to the formal, public policy responses or initiatives described in Box 1; and/or they are not relevant to climate change.

To avoid duplication, the papers by Mitchell and Tanner (2008) and Béné (2011) were not considered because they are introductions to journal special issues containing articles that meet the inclusion criteria. An article by Linnerooth-Bayer and Mechler (2006) was also deemed not relevant because it is concerned with the international climate policy landscape, which has evolved significantly since its publication.

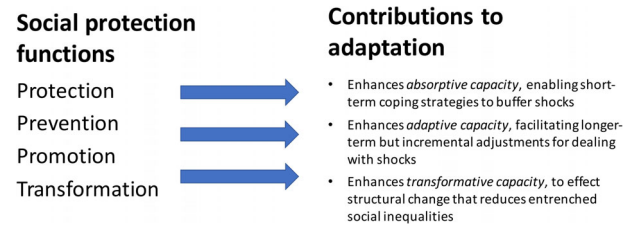
The remaining texts still varied in terms of the degree of attention they gave to social protection and adaptation. The inclusion criteria were therefore refined and only literature for which the main argument or research question dealt with social protection in the context of adaptation was considered (i.e., the topic features in at least one standalone section, if not integrated into the body of the text).

A limitation of this approach to reviewing literature, in particular with regard to the selection of keyword search terms used, is that relevant research which considers, for instance, weather-related shocks without making the link to longer term climate change, could have been missed. Adopting a snowball approach to capture any additional articles cited in the literature that did not appear in the keyword search results helped to rectify this. Ultimately, 31 articles and two book chapters, published between 2008 and 2019 are reviewed in this paper. Although this still does not make the review exhaustive, this selection of literature can be considered a substantive “proxy sample” (Berrang-Ford et al., 2015) of the research that exists on the topic of interest.

BOX 2 Keyword search terms entered in Scopus

(TITLE-ABS-KEY (“social protection” OR “safety net” OR “social assistance” OR “cash transfer”) AND TITLE-ABS-KEY (climate) AND TITLE-ABS-KEY (“adaptation” OR “resilience”) AND TITLE-ABS-KEY (developing OR development OR “low income” OR “poor” OR “poverty”))

FIGURE 1 Framework to analyze the contribution of social protection in building absorptive, adaptive and transformative capacity to respond to climate change. Adapted from Ulrichs and Slater (2016) and Béné, Devereux, and Sabates-Wheeler (2012)



The peer-reviewed papers are used to gauge what we know so far about the role of social protection in facilitating adaptation. It is the case, however, that much discussion around an integrated, “ASP” agenda is generated through non-peer-reviewed commentaries and publications issued by non-governmental organizations and development agencies. Therefore, in assessing how thinking on ASP is evolving, gray literature has been taken into account from centers known to be working in this area. Gray literature presenting arguments already covered by the peer-reviewed research (many of which were written by the same authors) were not considered.

3.1 | Analytical framework

To analyze the transformational potential of social protection as presented in current literature, I employ a framework from resilience thinking. Béné, Wood, Newsham, and Davies (2012) adopt a similar view as advocates of transformation in arguing that the long-term resilience of a socioecological system (or individual, household, community, etc.) arises from a combination of three critical dimensions: absorptive capacity, adaptive capacity, and transformative capacity. Conceptually, one can think of (a) absorptive capacity as enabling short-term coping strategies to buffer shocks; (b) adaptive capacity as facilitating longer-term but incremental adjustments which do not require major qualitative change in a system's structure or functioning; and (c) transformative capacity as paving the way for more drastic, system-level change to ensure its long-term “survival” (Béné, Wood, et al., 2012). The authors usefully combine this conceptual framework for resilience with Devereux and Sabates-Wheeler (2004)'s 3P+T typology for social protection to evaluate if select social protection programs contribute to strengthening the resilience of their beneficiaries.

Critics in the climate change community have voiced that where resilience thinking falls short, however, is in its sometimes limited consideration of empowerment and human agency (Bahadur & Tanner, 2014; Béné et al., 2014; Cannon & Müller-Mahn, 2010; Tanner et al., 2015). This is particularly noticeable in the way “transformation” can be interpreted in resilience discourse, as a shift that is predominantly technical or technological in nature and not necessarily one that disturbs the status quo with regard to existing power structures. Therefore, in applying Béné, Devereux, and Sabates-Wheeler (2012)'s combined (resilience and 3P+T) analytical framework to this review, I use the concept in the political sense, to align with critical adaptation literature (see Figure 1). Transformative capacity is the ability of individuals or households, or the social protection system itself to effect structural change that reduces entrenched social inequalities at the root of vulnerability to climate change.

4 | IS SOCIAL PROTECTION ALREADY CONTRIBUTING TO CLIMATE CHANGE ADAPTATION OUTCOMES?

4.1 | Social protection's protective, preventive and promotive functions can enhance absorptive and adaptive capacity

There is general agreement that the agenda's protective function helps households to cope with climate-related hazards and stresses, which is, although not sufficient, a prerequisite for building adaptive capacity. At the most basic level, regular cash or in-kind transfers provided by food security programs such as Ethiopia's Productive Safety Net Programme (PSNP) and Kenya's Hunger Safety Net Programme enable the poor to meet their most acute and immediate needs and access extra resources in the event of climate-related shocks (Godfrey-Wood, 2011; Ulrichs, Slater, & Costella, 2019). Likewise, a study on public works programs finds that the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) and associated scheme in Andhra Pradesh provide a safety net to households during agricultural lean seasons and/or in the aftermath of unexpected shocks, by bolstering consumption, savings, financial inclusion, health and human capital (Godfrey-Wood & Flower, 2017). Finally, Börner, Shively, Wunder, and Wyman (2015)'s analysis of 8,000 rural households in 25 developing countries shows that access to rural credit facilities is associated with enhanced asset-based strategies to cope with shocks that affect a large proportion of the population at the same time (i.e., covariate shocks).

When the agenda's preventive and promotive functions are also harnessed, social protection can enhance recipients' adaptive capacity. A number of articles focus on how instruments such as cash transfers, starter packs and microloans help households build their asset base, which in turn facilitates forward-looking planning and climate-resilient livelihoods (Godfrey-Wood, 2011; Hossain & Rahman, 2018; Siddiqi, 2011; Ulrichs et al., 2019). Hossain and Rahman (2018), for instance, show that cash and asset transfers are essential for increasing the adaptive capacity of the urban poor in Bangladesh, as they provide households with a capital base to engage in new income generating activities—especially when combined with other forms of support such as training. Others focus more specifically on the role of social protection for managing risk. Hansen et al. (2019) find that instruments such as safety nets and insurance help smallholder farmers overcome risk-related barriers to the adoption of more productive and climate-resilient agricultural technology and practices. Furthermore, index-based insurance and risk-reducing technology play complementary risk-sharing roles: insurance can cover the residual risks from severe climate-related shocks that technologies alone cannot handle, while technologies reduce the risks that insurance must cover, and therefore also its cost (Hansen et al., 2019).

Social protection likewise enhances the absorptive and adaptive capacities of households confronted with climate-related migration. Protective instruments such as cash and asset transfers and public workfare are vital immediate-term safety nets for households at risk of forced displacement or distress migration (i.e., a maladaptive coping strategy) following rapid-onset climate impacts (Johnson & Krishnamurthy, 2010; Schwan & Yu, 2018). But with additional preventive and promotive objectives, social protection can also facilitate voluntary resettlement as a forward-looking and long-term adaptation strategy, by subsidizing transaction costs of economic migration as well as helping recipients to (re)build their livelihoods and social networks once resettled (Johnson & Krishnamurthy, 2010; Schwan & Yu, 2018). Public employment schemes moreover support recovery and reconstruction in the aftermath of disasters, and the creation of resilient infrastructure and other public assets that can reduce the impact of future shocks (Godfrey-Wood & Flower, 2017; Schwan & Yu, 2018). However, ensuring that interventions effectively target the households which face the economic, social and legal barriers preventing them from considering migration as an adaptation strategy is a major challenge (Johnson & Krishnamurthy, 2010).

4.2 | Limited attention is given to enhancing transformative capacity through rights-based social protection

Rights-based perspectives on social protection feature less in the reviewed literature. Godfrey-Wood and Flower (2017) are among the few to show the value of transformative social protection objectives for inclusive and long-term adaptation. They identify MGNREGA as a rights-based safety net because it guarantees 100 days of wage employment per year (for unskilled manual work) to all rural Indians who opt in, unconditional on the availability of funding. Furthermore, the Act encourages the participation of women on equal terms to men and includes provisions for preventing discrimination on the basis of gender and caste. The authors find evidence in the literature that these characteristics have partially shifted power relations between laborers and local elites as well as empowered women within households. Although the impact the scheme varies substantially across states depending on how committed local governments are to its implementation, Godfrey-Wood and Flower (2017) argue MGNREGA has the transformational potential to challenge power structures that contribute to vulnerability and poverty.

4.3 | The role of social protection should not be overstated; it can also be a barrier to long-term adaptation

Some research cautions against over-stating social protection's contribution to climate change adaptation. While evaluations have concluded that Ethiopia's PSNP has positive effects on food security (e.g., Hoddinott et al., 2011). Béné, Devereux, and Sabates-Wheeler (2012) show that the program is not robust enough to protect participating households completely against impacts of severe shocks (particularly droughts). Likewise, Haug and Wold (2017) find that although Malawi's 2005–2015 Farm Input Support Programme advanced food security by improving agricultural productivity, the effects of 2015 flooding and 2016 drought show that more effective measures are required to reduce long-term vulnerability to shocks and stresses. Lemos, Lo, Nelson, Eakin, and Bedran-Martins (2016)'s analysis of 476 rural households' capacity to respond to droughts in northeast Brazil also renders similar conclusions. Although they confirm a positive association between income and vulnerability reduction, they find that on their own, poverty reduction measures (in this case, Brazil's social protection program, *Bolsa Família*) are insufficient for managing drought-related food insecurity. Such efforts should be complemented with interventions that specifically aim to reduce climate risks (such as improving access to irrigation; Lemos et al., 2016).

Other studies suggest that when social protection interventions facilitate short-term coping against climate impacts, it is at the expense of building longer term adaptive (and transformative) capacity. For instance, Weldegebriel and Prowse (2013) find that Ethiopia's PSNP does protect households from adverse effects of climate change in the short term, but it has not enabled households to diversify their livelihoods to productive, non-farm activities which would enhance resilience in the long-term. They observe an increase in off-farm income among households who receive transfers, but this income is associated with activities involving natural resource extraction (e.g., firewood collection, charcoal production, and gathering of wild fruits). The authors interpret this finding as a negative adaptation strategy because it perpetuates a dependence on natural resources, which has implications for the environment and longer-term agricultural productivity (Weldegebriel & Prowse, 2013). Mersha and van Laerhoven (2018)'s findings moreover suggest that while the creation of community assets through the public works component increases non-PSNP households' options for autonomous adaptation (thereby increasing their resilience to climate change), it constrains those of PSNP households because of the labor and time investments the public works require. This negative effect is also more pronounced for women, as a consequence of both the PSNP's prioritization of female-headed households in its targeting, and local gender norms and power asymmetries (Mersha & van Laerhoven, 2018).

Concerns about social protection leading to mal-adaptation in the long-term are raised in studies about insurance in particular, not least because insurance protects less well against slow-onset climate impacts and tends to overlook non-climatic dimensions of vulnerability (Heltberg et al., 2009). Panda (2013)'s study on crop insurance in two districts in Western Odisha, India also shows that small and marginal farmers often lack access to crop insurance (e.g., because of an absence of property rights to land), or awareness and understanding of the concepts and procedures to enable them to make an informed decision about whether they should acquire insurance. When they do have access, the probability that they shift from traditional to cash crop cultivation (mono-culture) increases, which paradoxically makes farmers more at risk of total crop failure (Panda, 2013). Moreover, Akter (2012)'s review of research on the potential of weather microinsurance in Bangladesh highlights that insurance does not provide a safety net against climate risks for the poor due to low demand, poor coverage and lack of commercial viability. In fact, vulnerability of the poor is likely to increase if funding from postdisaster relief and rehabilitation is redirected to subsidize weather microinsurance premiums for better-off households (Akter, 2012). It is important to note, however, that while Insurance falls under the umbrella of social protection, its contribution to adaptation is widely studied as an area of research in its own right—this review therefore does not capture the full extent of this research.

These articles do not necessarily reject the idea that social protection contributes to adaptation. Rather, they suggest that current systems or certain instruments are not yet fit to deal with new challenges associated with climate change. They especially need to go beyond supporting short-term coping strategies and, in the case of insurance, ensure that inequalities are not exacerbated as a result of uneven access. In any case, social protection would not be a panacea; it would only ever form a part of the adaptation toolkit. In fact, the research that finds a positive role for social protection in supporting adaptation also points to its limitations. For instance, in their analysis of research on MGNREGA, Godfrey-Wood and Flower (2017) emphasize that results of the implementation of the scheme vary substantially across Indian states, depending on factors such as political commitment and government capacity.

5 | “ADAPTIVE SOCIAL PROTECTION”: AN EVOLVING AGENDA

The literature covered thus far has focused on how existing social protection programs might already contribute to adaptation outcomes. Much of this research also recommends more deliberate integration of the two agendas. In this regard, the concept of “ASP” has gained traction in both peer-reviewed literature and policy circles.

5.1 | Adaptive, climate-responsive and shock-responsive social protection: Overlapping or divergent concepts?

The terms “adaptive,” “climate-responsive,” and “shock-responsive” social protection are often used interchangeably. Yet, important nuances exist between the original “ASP” framework and those corresponding to “climate-responsive” and “shock-responsive” social protection. These divergences partly reflect whether social protection is being approached from a growth-oriented or a rights-based, transformative perspective.

5.1.1 | ASP's rights-based roots

First to propose the idea and coin the term “ASP” were Davies, Guenther, Leavy, Mitchell, and Tanner (2008) from IDS. The authors explore the opportunities for linking social protection, adaptation and disaster risk reduction (DRR) through this

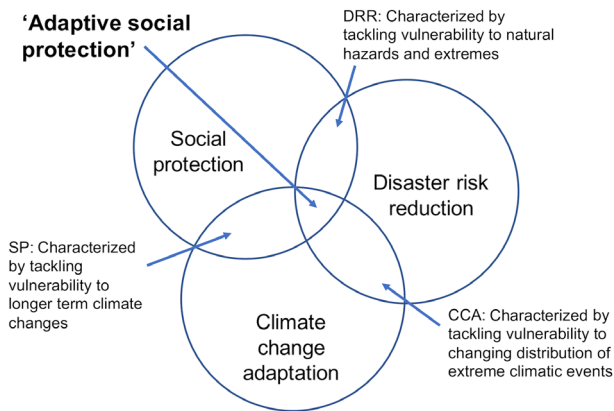


FIGURE 2 Framework for adaptive social protection. (Reprinted with permission from Davies, Guenther, Leavy, Mitchell, and Tanner (2009) Copyright 2009 Institute for Development Studies.)

concept, to enhance agriculture-dependent rural communities' resilience to climate-related shocks and stresses (see Figure 2). Based on a review of concepts, policies and evidence across the three communities of practice, they argue that adaptation and DRR can contribute to making social protection systems more robust and dynamic in the face of current and future shocks and stresses. At the same time, social protection can help adaptation and DRR better address the structural root causes of poverty and vulnerability to weather extremes, in efforts to strengthen or transform the productive livelihoods of the poor. In this manner, the authors place importance on the transformative aspect of their colleagues Sabates-Wheeler and Devereux (2007)'s social protection framework. It is precisely for this reason that Bee, Biermann, and Tschakert (2013) highlight the potential of ASP to advance gender justice in adaptation policy and programs, which they argue have tended to overlook women as active participants in household and community adaptation.

Davies et al. (2013) build the case for ASP with a study of 124 programs and projects designed to enhance the resilience of agriculture-based livelihoods of households in South Asia. They find little integration of social protection, DRR and adaptation objectives. Yet, those programs that do have elements of all three workstreams in their objectives focus on preventive rather than reactive actions (Davies et al., 2013). Moreover, they embrace the transformative function of social protection with an emphasis on reaching and empowering the poorest members of society and addressing issues of land or employment rights (Davies et al., 2013). Davies et al. (2013) argue that this consideration to vulnerability reduction over time horizons that stretch far beyond the intervention period could have a long-lasting impact on the livelihoods of the rural households covered by the programs.

5.1.2 | Climate-responsive social protection's social risk management roots

Heltberg et al. (2009) approach an integrated framework for adaptation and social protection from the growth-oriented, social risk management perspective. They identify a variety of social protection instruments as “no-regrets” policy options to reduce poor households' vulnerability to climate change. For instance, they recommend building country capacity to deliver cash transfers and public works programs in the aftermath of disasters and emphasize the importance of contingency arrangements for scaling up safety nets at short notice. Kuriakose et al. (2013) subsequently pick up on these conclusions and propose a framework for “climate-responsive social protection.” This framework is based on three principles: (a) “climate-aware planning,” (b) understanding how assets and livelihood strategies are affected by climate change, and (c) enhancing local collaborative efforts among actors (Kuriakose et al., 2013). They are reflected in the design features that the authors propose for climate-responsive social protection programs (see Figure 3 and Table 1).

As before, the 3P+T and risk management approaches to social protection applied to adaptation are not contradictory. Kuriakose et al. (2013) argue that the differences between the two are for the most part semantic: “ahead of shocks, risks can be mitigated, thereby preventing poverty; *ex-post*, social protection can help people cope, thereby protecting against the worst consequences of poverty; and in the long-term, social protection can promote enhanced livelihood opportunities, which include an inherent risk-reduction element” (p. 22). The authors however do not include the transformative element of Sabates-Wheeler and Devereux (2007)'s social protection definition in their framework, though they write that empowering and building the capacity of local institutions can ensure greater inclusivity and equity in delivering social protection (Kuriakose et al., 2013).

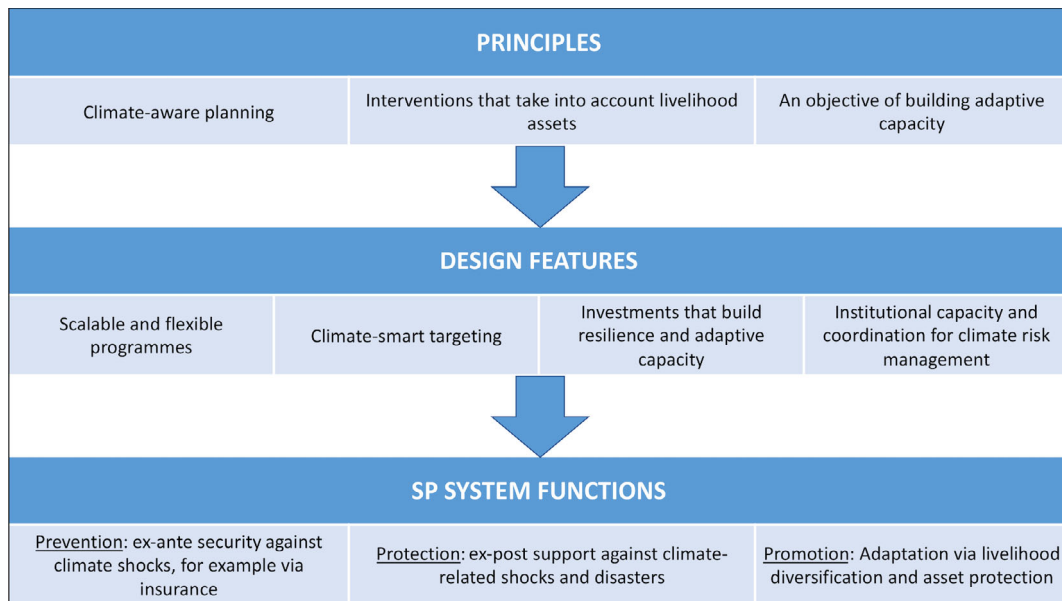


FIGURE 3 Framework for climate-responsive social protection. (Reprinted with permission from Kuriakose et al. (2013) Copyright 2013 John Wiley and Sons.)

5.1.3 | Shock-responsive social protection's humanitarian roots

Finally, the concept of Shock Responsive Social Protection (SRSP), although not limited to addressing climate-related shocks, bears resemblance to ASP. It brings together key elements of social protection (which Oxford Policy Management (2017) considers to be “a risk management tool for households and individuals” (2)), disaster risk management and humanitarian assistance. Here, the distinction between covariate shocks—which affect a large proportion of the population simultaneously, and idiosyncratic shocks—such as those related to life-course events (e.g., job loss, illness, death) affecting a single individual or household, is key (C. O'Brien et al., 2018). The primary concern of SRSP is bridging the gap between humanitarian and development aid to respond to major covariate shocks (Costella, Bachofen, & Marcondes, 2016; C. O'Brien et al., 2018). It aims to align or integrate emergency responses with existing social protection systems and programs, which typically protect livelihoods from the impact of idiosyncratic shocks (Costella et al., 2016; C. O'Brien et al., 2018).

Because of SRSP's emphasis on providing short-term relief in the event of humanitarian crises rather than on building long-term resilience, Béné et al. (2018) consider SRSP to be distinct from ASP. While SRSP builds households' absorptive capacity by providing them with transfers that buffer the direct impact of shocks, ASP (or climate-responsive social protection) extends beyond this objective and also builds longer-term adaptive, and potentially transformative, capacity (Béné et al., 2018). Nevertheless, shock-responsiveness is inherent in ASP (see Section 5.2).

5.2 | Design features for “adapting” social protection to climate change

Regardless of whether the qualifier “adaptive,” “climate-responsive,” or “shock-responsive” is used, what features are needed to adapt programs and systems to a growing number of environmental shocks and stresses has been the primary concern of research on an integrated agenda. Béné et al. (2018), for instance, identify five principles for ASP, which are not unlike the key options C. O'Brien et al. (2018) present for shock-responsive social protection. Recommendations in these two papers and the broader literature converge around the areas of: strengthening climate information systems to plan for and deliver social protection; scaling up the level of support to recipients as well as the number of people programs and systems can cover; putting in place appropriate finance mechanisms to deliver social protection at scale; and enhancing institutional capacity and coordination among the wide range of stakeholders involved in the delivery of social protection (see Table 1).

TABLE 1 Design features for “adapting” social protection programs and systems to climate change

| | |
|--|--|
| Climate-informed planning and implementation | <p>Social protection systems need to be informed by regularly updated climate projections of impacts on different geographies and across temporal scales, in order to implement well-planned, timely and targeted responses (Béné, Cornelius, & Howland, 2018; Conway & Schipper, 2011; Costella et al., 2017; Kuriakose et al., 2013; McCord, 2013; C. O'Brien et al., 2018; Siegel, Gatsinzi, & Kettlewell, 2011; Ulrichs et al., 2019).</p> <p>Forecasts can also be used to trigger actions before an event that puts people at risk occurs (Costella et al., 2017; Siegel et al., 2011; Wilkinson et al., 2018).</p> <p>At the institutional level, greater integration of real-time climate information can help ensure that social protection programs' operations are not disrupted and are financially prepared to absorb additional beneficiaries adversely affected by climate change (Conway & Schipper, 2011; Mesquita & Bursztyn, 2016, 2017).</p> <p>Public work programs like India's MGNREGS and Ethiopia's PSNP, should take into account of climate risks in planning for public works, and can also support the development of community assets that increase collective resilience to climate-related shocks and stresses (Adam, 2015; Agrawal et al., 2019; Kaur et al., 2019).</p> |
| Scalable support and coverage | <p>Social protection programs need to be scalable in relation to who receives support and how much support is provided. They should be able to expand “vertically” by increasing the level or length of support provided to its beneficiaries during times of need (Béné et al., 2018; Hallegatte et al., 2016; C. O'Brien et al., 2018; World Bank, 2018).</p> <p>Likewise, they should be able to expand “horizontally” by covering non-regular recipients of social protection to account for new vulnerabilities created by climate change (Béné et al., 2018; Carter & Janzen, 2018; Coirolo, Commins, Haque, & Pierce, 2013; Conway & Schipper, 2011; Davies et al., 2008; Dulal & Shah, 2014; Godfrey-Wood & Flower, 2017; Hallegatte et al., 2016; Heltberg et al., 2009; Janzen, Jensen, & Mude, 2016; Nguyen & Wodon, 2015; C. O'Brien et al., 2018; Schwan & Yu, 2018; Siddiqi, 2011). Because social protection is often targeted toward households falling below a set poverty line, the importance of treating poverty as a dynamic phenomenon heavily impacted by climate change is key in this regard—programs should account for the fact that during their lifetime, people can repeatedly move in and out of defined poverty lines as a result of a variety of shocks and stresses (Bee et al., 2013; Carter & Janzen, 2018; Godfrey-Wood & Flower, 2017; Hallegatte et al., 2016; Janzen et al., 2016)</p> |
| Reserve and forecast-based finance | <p>Along with strengthening links to climate information and early warning systems, finance for enabling social protection systems to address climate-related shocks and stresses dynamically and efficiently needs to be scaled up (Costella et al., 2017; Heltberg et al., 2009; Kuriakose et al., 2013; C. O'Brien et al., 2018; Ulrichs et al., 2019).</p> <p>Social protection systems should consider establishing contingency funds to allow for resources to be disbursed in a timely manner and at adequate levels during emergencies (Béné et al., 2018; Conway & Schipper, 2011; C. O'Brien et al., 2018; Slater & Bhuvanendra, 2014; Ulrichs et al., 2019; Ziegler, 2016).</p> <p>Forecast-based financing can also enhance early warning systems by facilitating planned anticipatory action using pre-defined triggers and supported by ear-marked funding (Costella et al., 2017). The effectiveness of such a mechanism depends on robust climate information systems, as well as the capacity of social protection programs to identify and pre-register beneficiaries, and implement the pre-agreed actions before the anticipated shock occurs (Costella et al., 2017).</p> |
| Strengthened institutional capacity and coordination | <p>Rather than developing new ASP programs or systems, policymakers should build on the existing infrastructure and enhancing institutional coordination among the sectors and actors already working in these areas (Béné et al., 2018; Davies et al., 2008, 2013; Kuriakose et al., 2013; C. O'Brien et al., 2018; Oxford Policy Management, 2017; Slater & Bhuvanendra, 2014; Slater, McCord, & Mathers, 2014; Ulrichs & Slater, 2016; Ziegler, 2016).</p> <p>Building institutional capacity—including to maintain comprehensive and regularly updated social registries to support the transitory poor affected by climate change, allow for portability of transfers for recipients who wish to move, and ensure good governance and accountability mechanisms—is equally essential for building flexible and scalable ASP systems (Costella et al., 2017; Gentilini, 2015; Hallegatte et al., 2016; Siegel et al., 2011; Wilkinson et al., 2018; Ziegler, 2016). However, this requires additional financial, technical and human resources which countries often do not have access to (Béné et al., 2018).</p> |

6 | HOW FAR DOES THE ASP AGENDA REALIZE OPPORTUNITIES FOR TRANSFORMATIONAL ADAPTATION?

Despite initial conceptual differences between adaptive, climate-responsive or SRSP, ASP has come to refer generally to the application of social protection to climate-related shocks and stresses (Devereux, 2016; World Bank, 2018). As the reviewed literature shows, the protective, preventive and promotive functions of social protection play an important role in addressing nonclimatic, socioeconomic drivers of vulnerability to climate change and reducing risks to household livelihoods and assets in particular. The qualifier “adaptive” is used when social protection's contribution to adaptation outcomes is further strengthened, primarily through technocratic adjustments to existing systems to manage local, biophysical risks associated with climate change in planning and implementation. But as the agenda evolves, the transformative objectives of the original ASP concept are increasingly forgotten. Little is said about its potential for empowering recipients and re-dressing structural inequalities that are the social root causes of vulnerability to climate change.

For instance, in the World Bank (2018)'s view, the ASP agenda has crystallized around two areas of focus: building households' long-term resilience before shocks occur, and increasing the capability of social protection systems to respond after they do. In 2014, it launched a 5-year Program in the Sahel to test this understanding of the concept at scale. The program aims to strengthen or expand existing safety net systems in Burkina Faso, Chad, Mali, Mauritania, Niger and Senegal, by building evidence, experience and learning on how to enable poor and vulnerable households to anticipate, absorb and recover from climatic shocks and stresses (World Bank, 2017). Béné et al. (2018) offer initial reflections and empirical lessons emerging from their independent evaluation of the program. In line with the literature, they find that the program does aim to make existing social protection systems scalable, enable rapid response, and expand targeting to those vulnerable to transitory poverty as a result of climate shocks. Moreover, it has the potential to enable beneficiaries to move beyond adopting only short-term coping strategies when faced with shocks, and support them to engage in longer-term adaptive strategies. However, although the authors qualify the underlying principles of the program as “transformative” because they require changes in the institutional and operational design of social protection systems, whether it has transformational effects around empowerment and equity as understood by Sabates-Wheeler and Devereux (2007) is not considered (Béné et al., 2018). Fostering such transformation for recipients is not an explicit objective of the program.

Critical adaptation scholarship questions how the very structures that underpin development and adaptation choices can perpetuate entrenched inequalities and be barriers to deep transformative change (Eriksen et al., 2015; Folke et al., 2010; Kates et al., 2012; Manuel-Navarrete & Pelling, 2015; K. O'Brien, 2012; Pelling et al., 2015). Currently, the design features that are proposed to make social protection “adaptive” rely on an undisturbed institutional and political status quo—one which is characterized by nationally owned systems that rely heavily on the support of bilateral donors and multilateral agencies (Lowder et al., 2017; World Bank, 2018). Therefore, the ASP agenda (as it is currently evolving) might not be able to be truly transformational for its recipients unless it challenges the very sociopolitical contexts within which it operates.

In addition, it is worth noting that although the ASP concept was introduced a decade ago and has generated positive response from policymakers, clear evidence of its uptake (as in the case of the World Bank's Sahel ASP program) and evaluation remains thin. Rather, existing aspects of programs are often used as examples of—or re-labeled—ASP, such as the frequently-referenced Risk Financing Mechanism and public works component of Ethiopia's PSNP. This is indeed in line with general agreement among practitioners early on that ASP approaches need not “re-invent the wheel” (Davies et al., 2008; World Bank, 2011). However, it might equally reflect attempts by governments to tap into emerging sources of climate finance for social protection, or by donors and program implementers to demonstrate integration of climate change considerations into existing social protection systems. This further raises questions about ASP's ability to challenge the status quo when so little change is needed for current programs to be called “adaptive.”

Besides the transaction costs that deep transformation implies, a major barrier to social transformation are the powerful interests that maintain current structures as they are (Béné et al., 2014; Folke, 2006; Kates et al., 2012; K. O'Brien, 2012). As Béné et al. (2018) note, programs that disturb even just the institutional status quo are not always welcome, and therefore careful assessments of the political economy of changes to existing systems are required to avoid outright rejection. Nevertheless, a concerted effort should be made to re-insert the rights-based, transformative lens into the ASP concept as the agenda continues to develop and gain traction among policymakers and practitioners.

This means, as Ulrichs et al. (2019) emphasize, not losing sight of the need to address the underlying causes of vulnerability to climate hazards through social protection. A first step in implementing transformative ASP should therefore be to improve the effectiveness of social protection delivery (e.g., ensuring timely, reliable and adequate transfers), because as the literature shows, “getting the basics right” can also contribute to increasing households' capacity to absorb and adapt to climate

risks (Ulrichs et al., 2019). A singular and premature focus on introducing technocratic and managerial changes to existing programs to make them “adaptive” could over-burden currently imperfect programs and systems, at the expense of their core development objectives (Agrawal et al., 2019; Ulrichs et al., 2019). Focusing too heavily on such efforts likewise perpetuates a narrow interpretation of vulnerability to climate change as arising solely from direct exposure to climate hazards (K. O'Brien et al., 2007). At the same time, further research is needed to seek better understanding of the perspectives and interests of intended ASP beneficiaries in particular, and how their voices are being silenced or heard in the process of shaping and implementing this evolving agenda (Eriksen et al., 2015; Sherman et al., 2016; Tanner & Allouche, 2011).

7 | CONCLUSION

The purpose of this study was to gauge what the literature says about social protection's current and potential role in facilitating adaptation in lower income countries. It also sought to assess the extent to which current thinking on an integrated adaptation and social protection agenda—increasingly referred to as “ASP”—can help transform the sociopolitical contexts where vulnerability to climate change originates. In doing so, it contextualized the reviewed literature within the existing debate over whether social protection should be approached from a growth-oriented stand-point or a rights-based, transformative one.

The financially dominant approach to delivering social protection has been a growth-oriented one, traditionally targeting the members of society who fall or are at risk of falling below defined poverty lines. In making the case for why and how it could contribute to climate change adaptation, much of the reviewed literature reflects this perspective. It focuses on how social protection protects its recipients from climate impacts by building their capacity to absorb and cope with shocks and stresses. It also shows how social protection builds adaptive capacity, preventing households from falling into poverty and promoting climate-resilient livelihoods and community assets (through public works) to reduce future susceptibility to shocks. The literature has also cautioned that the potential of social protection should not be overstated, however. On its own, social protection is not enough and must be complemented with other adaptation measures. Care must also be taken to ensure the agenda does not promote short-term coping strategies that lock households into livelihoods that are not resilient to climate impacts in the long-run. Moreover, diverting attention and resources toward insurance—which tends not to reach the poorest members of society—risks exacerbating inequalities.

This latter point speaks to critiques of the growth-oriented approach to social protection. Sabates-Wheeler and Devereux (2007) argue that in addition to the “3 Ps,” social protection should serve a transformative function. By this, they mean it should actively help to re-dress structural inequalities and uneven power relations, which are embedded in sociopolitical contexts and are at the root of poverty and vulnerability. However, much less attention has been paid in the literature to how adopting such a rights-based, transformative approach to social protection might facilitate inclusive and long-term adaptation.

In coining the term “ASP” to describe an agenda that integrates social protection and adaptation, Davies et al. (2008, 2013) embraced the transformative aspect of Sabates-Wheeler and Devereux (2007)'s framework. In parallel, however, similar ideas developed around “climate-responsive” and “shock responsive” social protection from a social risk management perspective. While all three frameworks recommend similar design features for making systems “adaptive” or responsive to climate change and other shocks, the conceptual differences between them reflect whether social protection is being approached from a growth-oriented or rights-based perspective. Yet, the qualifier “adaptive” is increasingly used to describe an agenda that brings the technocratic ideas behind all three frameworks together, at the expense of its transformative roots.

Sabates-Wheeler and Devereux (2007)'s call to address the root causes of vulnerability and poverty echoes those championing transformational adaptation. From the evidence presented in the literature, there is no doubt that adapting the protective, preventive and promotive functions of social protection to climate contexts holds promise as a tool for coping with and adapting to climate shocks. Combining social protection's poverty reduction goals with those of adaptation takes into account important non-climatic factors that affect vulnerability, together with exposure to climate hazards. Making social protection “technically” adaptive could further open opportunities for under-funded programs to tap into climate finance.

However, too narrow a focus on biophysical risks and economic protection risks perpetuating structural inequalities. Before championing the adoption of technocratic changes to make existing systems and programs “adaptive,” the ASP agenda should ensure that they are first effectively delivering on their original poverty and vulnerability reduction objectives (i.e., ensuring that they incorporate a transformative aim and outcome). At the same time, ASP initiatives need to be sensitive to power relations, and the often considerable barriers to achieving transformative outcomes. This requires ASP to actively challenge the sociopolitical status quo as a rights-based, transformative approach to social protection demands. Otherwise, they will continue to operate within the systems and power relations where both poverty and vulnerability to climate change originate.

Challenging how societies themselves create and perpetuate inequality is certainly difficult. Indeed, the practice of labeling or re-packaging unchanged aspects of existing programs as “adaptive” reflects how easily the status quo is maintained. Moreover, the lack of concrete evidence or recommendations in climate research around how to foster transformative adaptation (Sherman et al., 2016) suggests that further research is required to work through how framings of transformation map across the relevant adaptation and ASP literatures, and how these are playing out where implementation is underway. Nevertheless, the potential for ASP to be transformative for recipients should not be ignored. This would be a missed opportunity for an agenda that is still in the process of evolving to catalyze inclusive and long-lasting reduction in poverty and vulnerability to climate change.

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CONFLICT OF INTEREST

The author has declared no conflicts of interest for this article.

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REFERENCES

- *Peer-reviewed literature **Grey literature (including working papers, institutional reports, policy papers)
- *Adam, H. N. (2015). Mainstreaming adaptation in India—The Mahatma Gandhi National Rural Employment Guarantee Act and climate change. *Climate and Development*, 7(2), 142–152. <https://doi.org/10.1080/17565529.2014.934772>
- Adger, W. N. (2006). Vulnerability. *Global Environmental Change*, 16(3), 268–281. <https://doi.org/10.1016/j.gloenvcha.2006.02.006>
- **Agrawal, A., Costella, C., Kaur, N., Tenzing, J., Shakya, C., & Norton, A. (2019). *Climate resilience through social protection: Background paper for the Global Commission on Adaptation*.
- *Akter, S. (2012). The role of microinsurance as a safety net against environmental risks in Bangladesh. *Journal of Environment and Development*, 21(2), 263–280. <https://doi.org/10.1177/1070496512442505>
- Bahadur, A., & Tanner, T. (2014). Transformational resilience thinking: Putting people, power and politics at the heart of urban climate resilience. *Environment and Urbanization*, 26(1), 200–214. <https://doi.org/10.1177/0956247814522154>
- Barrientos, A. (2017). Design and rural context in antipoverty transfers: Implications for programme outcomes. *Global Food Security*, 12(3), 103–108. <https://doi.org/10.1016/j.gfs.2016.09.002>
- *Bee, B., Biermann, M., & Tschakert, P. (2013). Gender, development, and rights-based approaches: Lessons for climate change adaptation and adaptive social protection. In *Research, action and policy: Addressing the gendered impacts of climate change* (pp. 95–108).
- Béné, C. (2011). Social protection and climate change. *IDS Bulletin*, 42(6), 67–70. <https://doi.org/10.1111/j.1759-5436.2011.00275.x>
- *Béné, C., Cornelius, A., & Howland, F. (2018). Bridging humanitarian responses and long-term development through transformative changes—some initial reflections from the World Bank's adaptive social protection program in the Sahel. *Sustainability (Switzerland)*, 10(6), 1697. <https://doi.org/10.3390/su10061697>
- **Béné, C., Devereux, S., & Sabates-Wheeler, R. (2012). *Shocks and social protection in the Horn of Africa: Analysis from the productive safety net programme in Ethiopia* (IDS Working Papers 5). <https://doi.org/10.1111/j.2040-0209.2012.00395.x>

- Béné, C., Newsham, A., Davies, M., Godfrey-Wood, R., Ulrichs, M., & Godfrey-Wood, R. (2014). Resilience, poverty and development. *Journal of International Development*, 26(5), 598–623. <https://doi.org/10.1002/jid.2992>
- Béné, C., Wood, R. G., Newsham, A., & Davies, M. (2012). *Resilience: New Utopia or new Tyranny? Reflection about the potentials and limits of the concept of resilience in relation to vulnerability reduction programmes* (IDS Working Papers). <https://doi.org/10.1111/j.2040-0209.2012.00405.x>
- Berrang-Ford, L., Pearce, T., & Ford, J. D. (2015). Systematic review approaches for climate change adaptation research. *Regional Environmental Change*, 15(5), 755–769. <https://doi.org/10.1007/s10113-014-0708-7>
- *Börner, J., Shively, G., Wunder, S., & Wyman, M. (2015). How do rural households cope with economic shocks? Insights from global data using hierarchical analysis. *Journal of Agricultural Economics*, 66(2), 392–414. <https://doi.org/10.1111/1477-9552.12097>
- Brunori, P., & O'Reilly, M. (2010). Social protection for development: A review of definitions. *European Report on Development*.
- Cannon, T., & Müller-Mahn, D. (2010). Vulnerability, resilience and development discourses in context of climate change. *Natural Hazards*, 55(3), 621–635. <https://doi.org/10.1007/s11069-010-9499-4>
- *Carter, M. R., & Janzen, S. A. (2018). Social protection in the face of climate change: Targeting principles and financing mechanisms. *Environment and Development Economics*, 23(3), 369–389. <https://doi.org/10.1017/S1355770X17000407>
- *Coirolo, C., Commins, S., Haque, I., & Pierce, G. (2013). Climate change and social protection in Bangladesh: Are existing programmes able to address the impacts of climate change? *Development Policy Review*, 31(S2), 74–90. <https://doi.org/10.1111/dpr.12040>
- *Conway, D., & Schipper, E. L. F. (2011). Adaptation to climate change in Africa: Challenges and opportunities identified from Ethiopia. *Global Environmental Change*, 21(1), 227–237. <https://doi.org/10.1016/j.gloenvcha.2010.07.013>
- *Costella, C., Bachofen, C., & Marcondes, G. (2016). *7 things to know about managing climate risk through social protection*.
- **Costella, C., Jaime, C., Arrighi, J., Coughlan de Perez, E., Suarez, P., & van Aalst, M. (2017). Scalable and sustainable: How to build anticipatory capacity into social protection systems. *IDS Bulletin*, 48(4), 31–46.
- *Davies, M., Béné, C., Arnall, A., Tanner, T., Newsham, A., & Coirolo, C. (2013). Promoting resilient livelihoods through adaptive social protection: Lessons from 124 programmes in South Asia. *Development Policy Review*, 31(1), 27–58. <https://doi.org/10.1111/j.1467-7679.2013.00600.x>
- *Davies, M., Guenther, B., Leavy, J., Mitchell, T., & Tanner, T. (2008). “Adaptive social protection”: Synergies for poverty reduction. *IDS Bulletin*, 39(4), 105–112. <https://doi.org/10.1111/j.1759-5436.2008.tb00483.x>
- **Davies, M., Guenther, B., Leavy, J., Mitchell, T., & Tanner, T. (2009). *Climate change adaptation, disaster risk reduction and social protection: Complementary roles in agriculture and rural growth?* (IDS Working Papers 2009(320)), 1–37. https://doi.org/10.1111/j.2040-0209.2009.00320_2.x
- **Devereux, S. (2016). *Social protection for rural poverty reduction*. Retrieved from <http://www.fao.org/3/a-i5229e.pdf>
- Devereux, S., Roelen, K., & Ulrichs, M. (2016). Where next for social protection? *IDS Bulletin*, 47(4), 103–118. <https://doi.org/10.19088/1968-2016.158>
- Devereux, S., & Sabates-Wheeler, R. (2004). *Transformative social protection* (IDS Working Paper) (10), 36. <https://doi.org/10.4324/9780203842812>
- *Dulal, H. B., & Shah, K. U. (2014). “Climate-smart” social protection: Can it be achieved without a targeted household approach? *Environmental Development*, 10(1), 16–35. <https://doi.org/10.1016/j.envdev.2014.01.003>
- Eriksen, S. H., Nightingale, A. J., & Eakin, H. (2015). Reframing adaptation: The political nature of climate change adaptation. *Global Environmental Change*, 35, 523–533. <https://doi.org/10.1016/j.gloenvcha.2015.09.014>
- Folke, C. (2006). Resilience: The emergence of a perspective for social-ecological systems analyses. *Global Environmental Change*, 16(3), 253–267. <https://doi.org/10.1016/j.gloenvcha.2006.04.002>
- Folke, C., Carpenter, S. R., Walker, B., Scheffer, M., Chapin, T., & Rockström, J. (2010). Resilience thinking: Integrating resilience, adaptability and transformability. *Ecology and Society*, 15(4), 20–28. <https://doi.org/10.5751/ES-03610-150420>
- **Gentilini, U. (2015). *Entering the City: Emerging evidence and practices with safety nets in urban areas* (Discussion Paper 1504). Social Protection and Labor.
- Gentilini, U., & Omamo, S. W. (2011). Social protection 2.0: Exploring issues, evidence and debates in a globalizing world. *Food Policy*, 36(3), 329–340. <https://doi.org/10.1016/j.foodpol.2011.03.007>
- *Godfrey-Wood, R. (2011). Is there a role for cash transfers in climate change adaptation?, 42(6), 79–85.
- *Godfrey-Wood, R., & Flower, B. C. R. (2017). Does guaranteed employment promote resilience to climate change? The case of India's mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA). *Development Policy Review*, 36(August), O586–O604. <https://doi.org/10.1111/dpr.12309>
- **Hallegatte, S., Bangalore, M., Bonzanigo, L., Fay, M., Kane, T., Narloch, U., ... Vogt-Schilb, A. (2016). Managing the impacts of climate change on poverty. *Shock Waves: Climate change and development series*. <https://doi.org/10.1596/978-1-4648-0673-5>
- *Hansen, J., Hellin, J., Rosenstock, T., Fisher, E., Cairns, J., Stirling, C., ... Campbell, B. (2019). Climate risk management and rural poverty reduction. *Agricultural Systems*, 172, 28–46. <https://doi.org/10.1016/j.agsy.2018.01.019>
- *Haug, R., & Wold, B. K. G. (2017). Social protection or humanitarian assistance: contested input subsidies and climate adaptation in Malawi. *IDS Bulletin*, 48(4), 93–110.
- *Heltberg, R., Siegel, P. B., & Jorgensen, S. L. (2009). Addressing human vulnerability to climate change: Toward a “no-regrets” approach. *Global Environmental Change*, 19(1), 89–99. <https://doi.org/10.1016/j.gloenvcha.2008.11.003>

- **Hoddinott, J., Berhane, G., Kumar, N., Taffesse, A. S., Diressie, M. T., & Yohannes, Y. (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.
- Holzmann, R., & Kozel, V. (2007). The role of social risk management in development: A World Bank view. *IDS Bulletin*, 38(3), 8–13. <https://doi.org/10.1111/j.1759-5436.2007.tb00364.x>
- *Hossain, Z., & Rahman, A. U. (2018). Adaptation to climate change as resilience for urban extreme poor: Lessons learned from targeted asset transfers programmes in Dhaka city of Bangladesh. *Environment, Development and Sustainability*, 20(1), 407–432. <https://doi.org/10.1007/s10668-016-9888-2>
- International Labour Organization. (2017). *Universal social protection to achieve the sustainable development goals*. (World Social Protection Report 2017-19).
- *Janzen, S. A., Jensen, N. D., & Mude, A. G. (2016). Targeted social protection in a pastoralist economy: Case study from Kenya. *Revue Scientifique et Technique de l'OIE*, 35(2), 587–596. <https://doi.org/10.20506/rst.35.2.2543>
- *Johnson, C. A., & Krishnamurthy, K. (2010). Dealing with displacement: Can “social protection” facilitate long-term adaptation to climate change? *Global Environmental Change*, 20(4), 648–655. <https://doi.org/10.1016/j.gloenvcha.2010.06.002>
- Kates, R. W., Travis, W. R., & Wilbanks, T. J. (2012). Transformational adaptation when incremental adaptations to climate change are insufficient. *Proceedings of the National Academy of Sciences of the United States of America*, 109(19), 7156–7161. <https://doi.org/10.1073/pnas.1115521109>
- **Kaur, N., Agrawal, A., Steinbach, D., Panjiyar, A., Saigal, S., Manuel, C., ... Venkataramani, V. (2019). *Building resilience to climate change through social protection: Lessons from MGNREGS, India* (IIED Working Paper).
- *Kuriakose, A. T., Heltberg, R., Wiseman, W., Costella, C., Cipryk, R., & Cornelius, S. (2013). Climate-responsive social protection. *Development Policy Review*, 31(2011), 19–34.
- *Lemos, M. C., Lo, Y. J., Nelson, D. R., Eakin, H., & Bedran-Martins, A. M. (2016). Linking development to climate adaptation: Leveraging generic and specific capacities to reduce vulnerability to drought in NE Brazil. *Global Environmental Change*, 39, 170–179. <https://doi.org/10.1016/j.gloenvcha.2016.05.001>
- Linnerooth-Bayer, J., & Mechler, R. (2006). Insurance for assisting adaptation to climate change in developing countries: A proposed strategy insurance for assisting adaptation to climate change in developing countries: A proposed strategy. *Climate Policy*, 6(6), 621–636.
- Lowder, S. K., Bertini, R., & Croppenstedt, A. (2017). Poverty, social protection and agriculture: Levels and trends in data. *Global Food Security*, 15, 94–107. <https://doi.org/10.1016/j.gfs.2017.06.001>
- Manuel-Navarrete, D., & Pelling, M. (2015). Subjectivity and the politics of transformation in response to development and environmental change. *Global Environmental Change*, 35, 558–569. <https://doi.org/10.1016/j.gloenvcha.2015.08.012>
- **McCord, A. (2013). Review of the literature on social protection shock responses and readiness. *ODI Shockwatch*.
- Merrien, F.-X. (2013). Social protection as development policy: A new international agenda for action. *International Development Policy | Revue Internationale de Politique de Développement*, 4(2), 89–106. <https://doi.org/10.4000/poldev.1525>
- *Mersha, A. A., & van Laerhoven, F. (2018). The interplay between planned and autonomous adaptation in response to climate change: Insights from rural Ethiopia. *World Development*, 107, 87–97. <https://doi.org/10.1016/j.worlddev.2018.03.001>
- *Mesquita, P. S., & Bursztyrn, M. (2016). Integration of social protection and climate change adaptation in Brazil. *British Food Journal*, 118(12), 3030–3043. <https://doi.org/10.1108/BFJ-02-2016-0082>
- *Mesquita, P. S., & Bursztyrn, M. (2017). Food acquisition programs in the Brazilian semi-arid region: Benefits to farmers and impacts of climate change. *Food Security*, 9(5), 1041–1051. <https://doi.org/10.1007/s12571-017-0711-1>
- Mitchell, T., & Tanner, T. (2008). Defining a future research agenda a pro-poor adaptation. *IDS Bulletin*, 39(4), 130–132. <https://doi.org/10.1111/j.1759-5436.2008.tb00486.x>
- *Nguyen, M. C., & Wodon, Q. (2015). Government safety nets and transfer programs. In *Climate change adaptation and social resilience in the Sundarbans* (pp. 165–179).
- Norton, A., Conway, T., & Foster, M. (2001). *Social protection concepts and approaches: Implications for policy and practice in international development* (Working Paper No. 143). Overseas Development Institute.
- **O'Brien, C., Scott, Z., Smith, G., Barca, V., Kardan, A., Holmes, R., ... Congrave, J. (2018). *Shock-responsive social protection systems research: Synthesis report* (January).
- **O'Brien, K. (2012). Global environmental change. II: From adaptation to deliberate transformation. *Progress in Human Geography*, 36(5), 667–676. <https://doi.org/10.1177/0309132511425767>
- O'Brien, K., Eriksen, S. H., Nygaard, L. P., & Schjolden, A. (2007). Why different interpretations of vulnerability matter in climate change discourses. *Climate Policy*, 7(1), 73–88. <https://doi.org/10.1080/14693062.2007.9685639>
- Olsson, L., Opondo, M., Tschakert, P., Agrawal, A., Eriksen, S. H., Ma, S., ... Zakiideen, S. A. (2014). Livelihoods and poverty (IPCC Working Group II Chapter 13). In *Climate change 2014: Impacts, adaptation, and vulnerability. Volume I: Global and sectoral aspects. Contribution of working group II to the fifth assessment report of the intergovernmental panel on climate change*.
- **Oxford Policy Management. (2017). *Shock-responsive social protection systems research: Literature review* (2nd ed.). Oxford: Author.
- *Panda, A. (2013). Climate variability and the role of access to crop insurance as a social-protection measure: Insights from India. *Development Policy Review*, 31(SUPPL.2), 57–73. <https://doi.org/10.1111/dpr.12039>
- Pelling, M. (2010). Adaptation to climate change: From resilience to transformation. In *Adaptation to climate change: From resilience to transformation*. <https://doi.org/10.4324/9780203889046>

- Pelling, M., O'Brien, K., & Matyas, D. (2015). Adaptation and transformation. *Climatic Change*, 133(1), 113–127. <https://doi.org/10.1007/s10584-014-1303-0>
- Ribot, J. (2011). Vulnerability before adaptation: Toward transformative climate action. *Global Environmental Change*, 21(4), 1160–1162. <https://doi.org/10.1016/j.gloenvcha.2011.07.008>
- Rickards, L. (2013). Transformation is adaptation. *Nature Climate Change*, 3, 690 Retrieved from <https://doi.org/10.1038/nclimate1933>
- Sabates-Wheeler, R., & Devereux, S. (2007). Social protection for transformation. *IDS Bulletin*, 38(3), 23–28. <https://doi.org/10.1111/j.1759-5436.2007.tb00368.x>
- *Schwan, S., & Yu, X. (2018). Social protection as a strategy to address climate-induced migration. *International Journal of Climate Change Strategies and Management*, 10(1), 43–64. <https://doi.org/10.1108/IJCCSM-01-2017-0019>
- Sherman, M., Berrang-Ford, L., Lwasa, S., Ford, J., Namanya, D. B., Llanos-Cuentas, A., ... Ihacc, R. (2016). Drawing the line between adaptation and development: A systematic literature review of planned adaptation in developing countries. *WIREs Climate Change*, 7(5), 707–726. <https://doi.org/10.1002/wcc.416>
- *Siddiqi, A. (2011). Supporting the working but vulnerable: Linkages between social protection and climate change. *Climate and Development*, 3(3), 209–227. <https://doi.org/10.1080/17565529.2011.598365>
- *Siegel, P. B., Gatsinzi, J., & Kettlewell, A. (2011). Adaptive social protection in Rwanda: “Climate-proofing” the vision 2020 Umurenge Programme. *IDS Bulletin*, 42(6), 71–78. <https://doi.org/10.1111/j.1759-5436.2011.00276.x>
- **Slater, R., & Bhuvanendra, D. (2014). Scaling up existing social safety nets to provide humanitarian response: A case study of Ethiopia's productive safety net programme and Kenya's hunger safety net programme. Case study for King's College London's humanitarian futures program, Overseas Development Institute and the cash learning partnership.
- **Slater, R., Mccord, A., & Mathers, N. (2014). *Shaping policy for development Guidance note for DFID: Exploiting the synergies between social protection and economic development Preface—A note for DFID staff.*
- *St. Clair, A. L. (2010). Global poverty and climate change: Towards the responsibility to protect. *Climate Change, Ethics and Human Security*, 9780521197, 180–198. <https://doi.org/10.1017/CBO9780511762475.012>
- Standing, G. (2007). Social protection. *Development in Practice*, 17(4–5), 511–522. <https://doi.org/10.1080/09614520701469435>
- Tanner, T., & Allouche, J. (2011). Towards a new political economy of climate change and development. *IDS Bulletin*, 42(3), 1–14. <https://doi.org/10.1111/j.1759-5436.2011.00217.x>
- Tanner, T., Lewis, D., Wrathall, D., Bronen, R., Cradock-Henry, N., Huq, S., ... Thomalla, F. (2015). Livelihood resilience in the face of climate change. *Nature Climate Change*, 5(1), 23–26. <https://doi.org/10.1038/nclimate2431>
- Tschakert, P., van Oort, B., St. Clair, A. L., & LaMadrid, A. (2013). Inequality and transformation analyses: A complementary lens for addressing vulnerability to climate change. *Climate and Development*, 5(4), 340–350. <https://doi.org/10.1080/17565529.2013.828583>
- **Ulrichs, M., & Slater, R. (2016). *How can social protection build resilience?* Kenya and Uganda: Insights from Ethiopia.
- *Ulrichs, M., Slater, R., & Costella, C. (2019). Building resilience to climate risks through social protection: From individualised models to systemic transformation. *Disasters*, 43(S3), S368–S387. <https://doi.org/10.1111/disa.12339>
- United Nations. (2015). *Transforming our world: The 2030 agenda for sustainable development*. Retrieved from <https://sustainabledevelopment.un.org/content/documents/7891Transforming%20Our%20World.pdf>
- Watts, M. J. (2015). The Routledge handbook of political ecology. In T. Perreault, G. Bridge, & J. McCarthy (Eds.), *The Routledge handbook of political ecology* (pp. 19–50). New York, NY: Routledge.
- *Weldegebriel, Z. B., & Prowse, M. (2013). Climate change adaptation in Ethiopia: To what extent does social protection influence livelihood diversification? *Development Policy Review*, 31(10), 35–56.
- Wilkinson, E., Weingärtner, L., Choularton, R., Bailey, M., Todd, M., Kniveton, D., & Venton Cabot, C. (2018). Forecasting hazards, averting disasters: Implementing forecast-based early action at scale (ODI Report).
- World Bank. (2001). *Social protection sector strategy: From safety net to springboard*. Washington, DC: Author.
- **World Bank. (2011). *Social protection and climate resilience: Report from an International workshop, Addis Ababa March 14–17, 2011*. Washington, DC: Author.
- *World Bank. (2017). *Sahel adaptive social protection program: Addressing the challenges of climate change and disaster risk for the poor and vulnerable*. Retrieved from <http://documents.worldbank.org/curated/en/973501518153667496/pdf/123339-WP-PUBLIC-ASPPprogramnote.pdf>
- **World Bank. (2018). *The state of social safety nets 2018*. Retrieved from <https://openknowledge.worldbank.org/bitstream/handle/10986/29115/9781464812545.pdf?sequence=5&isAllowed=y>
- **Ziegler, S. (2016). Adaptive social protection—Linking social protection and climate change adaptation. *GIZ Discussion Papers on Social Protection*.

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