

‘Adaptive Social Protection’: Synergies for Poverty Reduction

Mark Davies, Bruce Guenther, Jennifer Leavy, Tom Mitchell
and Thomas Tanner

1 Introduction

Global processes and crises are changing and deepening the risks already faced by poor and vulnerable people in rural areas, particularly those involved in agriculture and other ecosystem-dependent livelihoods. Reliance on subsistence agriculture means the impact of stresses and shocks (such as droughts or floods) are felt keenly by rural poor people, who depend directly on food system outcomes for their survival. This has profound implications for the security of their livelihoods and for their welfare. However, such stresses and shocks will not necessarily lead to negative impacts, as risks and uncertainties, often associated with seasonality, are embedded in the practice of agriculture and there is considerable experience of coping and risk management strategies among people working in this sector. With climate change, the magnitude and frequency of stresses and shocks is changing and approaches such as social protection, disaster risk reduction (DRR) and climate change adaptation will be needed to bolster local resilience and supplement people's experience.

This article examines the opportunities for linking social protection, adaptation and DRR in the context of agriculture and rural growth, exploring whether linking these three approaches together will help enhance resilience to shocks and stresses in agriculture-dependent rural communities. The article does this by (1) reviewing conceptual and policy-related similarities and differences between the three literatures; (2) collecting evidence from case studies where climate change-resilient social protection approaches have been trialled; and (3) developing an *adaptive social protection* framework that highlights opportunities for better coordination.

2 Social protection, adaptation and DRR: similarities and differences

As we understand more about the impacts of climate change, adapting to these impacts has grown from a minor environmental concern to a major challenge for human development, and a crucial element in eradicating poverty and achieving the Millennium Development Goals (MDGs).

The disasters community has responded to climate change impacts on natural hazards by focusing beyond humanitarian relief and rehabilitation activities towards preventing and reducing the risk of disasters. Major disaster events linked to geophysical hazards such as the Iran (2003) and Pakistan (2005) earthquakes and the South Asian tsunami (2004) have added impetus to this shift.

Social protection has witnessed a similarly rapid rise up the development policy agenda and growing experience, together with improved evidence, suggests that it can effectively contribute to poverty reduction and move people into productive livelihoods. Many of the policy instruments associated with social protection have contributed to reducing vulnerability related to the variations and extremes in climate and their impact on rural livelihoods.

There are potential policy linkages and complementarities between the three fields in the context of agricultural growth. All three aim to address risk and, importantly, vulnerability to that risk. To date, despite ongoing efforts to link disasters and climate change communities, there has been little cross-fertilisation with social protection policies and practices.

Table 1 Key characteristics of social protection, adaptation and DRR

	Social protection	Adaptation	DRR
Core disciplinary grounding	Development and welfare economics	Social development and physical sciences	Physical sciences and social development
Dominant focus	Implementation of measures to manage risk	Enabling processes of adaptation	Prevention of disaster events and preparedness to respond
Main shocks and stresses addressed	Multiple – idiosyncratic and covariant	Climate-related	All natural hazard-related, including climate and geophysical
International coordination	Informal, OECD task group	UNFCCC – Nairobi Work Programme	UN-ISDR Hyogo Framework for Action
Main funding	<i>Ad hoc</i> multilateral and bilateral, NGOs, national community-based and faith-based organisations	Coordinated international funds: Global Environment Facility, UNFCCC/Kyoto Protocol funds. <i>Ad hoc</i> bilateral	Coordinated international funding: ISDR, GFDRR, UNDP, Red Cross, <i>ad hoc</i> civil sponsored and bilateral

3 Linking climate change adaptation, disaster risk reduction and social protection, through risk and vulnerability

3.1 Risk and vulnerability in agriculture and rural livelihoods

Livelihoods of poor rural people are characterised by high levels of risk and vulnerability to adverse shocks and stresses. Weather-related shocks and stresses impact on agricultural production, affecting both small-scale producers and those working in larger-scale agriculture and non-agricultural enterprises in rural areas.

High reliance on subsistence agriculture means the impact of stresses and shocks (such as droughts or floods) are felt keenly by rural poor people who depend directly on agriculture for their survival. This has profound implications for livelihoods and food security and, therefore, for growth and welfare. However, shocks will not necessarily lead to detrimental impacts. Embedded risk and uncertainty are intrinsic to agricultural practice, inherent seasonality contributes to this, and there is considerable literature and experience on coping and risk management strategies. Selling productive assets, such as livestock, is a common coping strategy among the rural poor during times of climatic stress or shock. Inability to access such assets traps the poor in a persistent cycle of chronic poverty (CPRC 2004; World Bank 2001).

3.2 Social protection in agriculture and rural livelihoods

Social protection for the most vulnerable people has become a key policy response to risk and vulnerability in the agriculture sector (Dorward *et al.* 2007; Farrington *et al.* 2004a,b). Agricultural policies can help people improve their livelihoods and security; the right social protection can complement these policies and help rural people not only to expand their assets, but to use them efficiently and adopt higher return activities that might otherwise be too risky. Ideally, this approach also enhances local people's 'adaptive capacity' to respond to actual or expected climatic stimuli or their effects, and to moderate harm or exploit beneficial opportunities (McCarthy *et al.* 2001).

3.3 Disaster risk reduction and livelihoods

Disasters can have a huge impact on livelihoods and on people's ability to cope with further stresses. Impacts such as loss of assets can lead to increased vulnerability of poor people to a 'downward spiral of deepening poverty and increasing risk' (DFID/PLOW Briefing Note). Disaster risk reduction aims to make livelihoods more resilient to the impacts of disasters, hazards and shocks before the event. There are multiple overlaps between disaster risk reduction and social protection in a livelihoods context. Indeed, they may be identical in terms of their activities and outcomes, differing principally in their motivations and institutional homes.

Table 2 Promoting adaptation through social protection

SP category	Examples of SP instruments	DRR benefits
Protective (coping strategies)	Social service provision Basic social transfers (food/cash) Social pension schemes Safety nets Public works programmes	Protection of those most vulnerable to DRR with low levels of resilience
Preventive (coping strategies)	Social transfers Livelihood diversification Weather-indexed crop insurance	Prevents damaging coping strategies as a result of risks to weather-dependent livelihoods
Promotive (building adaptive capacity)	Social transfers Access to credit Asset transfers or protection Starter packs (drought/flood-resistant) Access to common property resources Public works programmes	Promotes resilience through livelihood diversification
Transformative (building adaptive capacity)	Promotion of minority rights Anti-discrimination campaigns Social funds	Transforms social relations to combat discrimination underlying social and political vulnerability

In agriculture, disaster risk reduction programmes have been used to lessen the effects of persistent food shortages and prevent widespread famines. Programmes include early warning systems, infrastructure investment, social protection measures, risk awareness and assessment, education and training, and environmental management. DRR has been shown to have a positive impact on agricultural and rural livelihoods in many cases. For example in Malawi, the construction of dams and storage facilities have helped to guard against flooding while improving water collection and generating incomes through community-based fish farming.

4 Climate change adaptation – links to DRR and agriculture

Adaptation shares much in common with DRR in preventing harmful impacts of extreme events. It also brings additional challenges. While people have adopted practices to deal with changing weather and climate for centuries, including through disaster risk management, climate change leads to new risks that have not been experienced in recent history, including more severe drought impacts, heat-waves, and accelerated glacier retreat, hurricane intensity, and sea-level rise (Adger *et al.* 2007). Future responses will need to be much more robust and, in some situations, new and innovative responses will be required.

Agriculture is already heavily engaged in adaptation efforts, through studies of water availability and crop yield, for example. More recent approaches build on people's ability to cope with existing variations in climate. This is often poverty-focused, addressing underlying structural causes of vulnerability that can entrench poverty, including poor access to resources, and lack of information and capacity (Tanner and Mitchell, this *IDS Bulletin*, 'Entrenchment or Enhancement'). But global processes and crises are changing, deepening risks faced by poor, vulnerable people in rural areas. There are likely to be impacts on food security and distribution systems in many parts of the world with effects on purchasing power.

There is still uncertainty around the precise impact of climate change on agricultural/rural livelihoods. Even so, some studies suggest that the effects overall will be negative for developing countries: 'The impact of climate change on food security will be higher in those countries with low economic growth potential that currently have high malnourishment levels' (FAO 2005: 3). These impacts will interact directly with other issues such as changing pest and disease patterns, compounding problems already faced by poor rural people over the longer term.

5 Key policy issues

Experiences in DRR and social protection have much to contribute to adaptation policies for the poorest, most vulnerable communities. Conversely DRR and social protection need to assess the extent they can handle changes in frequency and intensity of extreme weather events. Table 1 highlights key features of these three policy areas and identifies linkages in the debates and conceptual frameworks.

6 Towards addressing structural constraints around poverty through social protection

In the disasters field, the bulk of efforts and resources have been within relief and recovery designed to smooth the social impact of shocks. Despite renewed momentum and commitments, far less emphasis has been placed on preventative approaches associated with DRR that tackle disasters from a holistic perspective.

Social protection has much to offer in helping the poorest reduce their exposure to current and future climate shocks (Table 2). Joining these related agendas therefore means looking beyond simply protecting the most vulnerable to the impact of shocks and stresses, and towards prevention and promotion to address structural constraints around poverty.

7 Timeframe and limits: driving longer-term perspectives on social protection

7.1 People-centred and social aspects

Social protection interventions need to fully address issues of social vulnerability including marginalisation and exclusion, and be based on the realities of the poor. Recent disasters and adaptation discourse and practice is now giving increased focus to community-based adaptation, and the development of tools and methods to assess human vulnerability.

7.2 Institutional capacity and coordination

Ministries responsible for the three different fields are commonly poorly resourced and marginalised, which constrains effective cross-sectoral linkages. Political ownership is important for building a coherent agenda among the fields. For each, it is important to link policy and actions with wider poverty reduction frameworks and growth strategies.

7.3 Instrumentalism vs. rights-based approaches

From an instrumentalist perspective, social protection is often viewed as a means for efficient

delivery of the MDGs. Similarly, DRR and adaptation are advocated as cost-effective means of preventing future negative impacts on development investments. From a rights-based or activist perspective, related equity and justice debates have been at the heart of advocacy on adaptation and social protection (the ideal of a 'universal social minimum'). A key implication is likely increased engagement with rights- and equity-based arguments around climate change injustice.

8 Linkages in practice: investigating the evidence base

Practical experience of a broad range of social protection instruments – weather-indexed crop insurance, free input distribution and seed fairs, asset transfers and cash transfers – reveal how these measures can enhance the resilience of poor and vulnerable people's livelihoods to current and future climate-related shocks. Examples are described below and summarised in Table 3.

9 Weather-indexed crop insurance

Crop insurance is widespread throughout the developed world and commonly insures farmers against losses in crop yields resulting from weather-related stresses. As climate impacts become increasingly critical to agriculture production in developing countries due to climate change, insurance is likely to play a greater role in absorbing shocks and spreading risk. In recent years there has been a shift away from insuring against poor crop yields toward insuring directly against bad weather. Weather-indexed crop insurance develops a contract written against an index establishing a relationship between lack of rainfall and crop failure, verified by long historical records of both rainfall and yields. Farmers collect an immediate payout if the index reaches a certain measure or 'trigger', regardless of actual losses, so farmers still have an incentive to make productive management decisions. This removes moral hazard and adverse selection problems inherent in crop insurance (Hellmuth *et al.* 2007; Hess and Syroka 2005; Pierro and Desai, this *IDS Bulletin*). When well designed, they may also permit farmers to enhance adaptive capacity through greater risk-taking experimentation in agriculture practices not possible in crop insurance schemes.

A pilot project was undertaken by the Government of Malawi, the World Bank, International Research Institute for Climate and Society (IRI) and the

National Smallholder Farmers Association of Malawi (NASFAM) in which farmers entered into a loan agreement with an interest rate that includes a weather insurance premium. The loan enabled households to access an input package, which included improved groundnut seed.¹ In the event of a severe drought (as measured by the rainfall index), the borrower would pay only a fraction of the loan due, while the rest is paid by the insurer directly to the lender. The insurance guarantee against the loan allows high-risk and low-income farmers to obtain credit to invest in seeds and other inputs for higher yielding crops (Hellmuth *et al.* 2007).

Climate change impacts provide an imperative to such schemes to integrate flexible and inclusive measures designed to consider the differentiated nature of agriculture production among different groups of farmers, including poorer and more marginal farmers.

10 Asset restocking

As pointed out above, selling productive assets such as livestock is a common coping strategy among the rural poor during times of climatic stress or shock. Inability to access such assets traps the poor in a persistent cycle of chronic poverty (CPRC 2004; World Bank 2001). A sustainable strategy for disaster reduction must focus on activities to help the vulnerable build assets (UN-ISDR 2004; Wisner *et al.* 2004; Vatsa 2004) which incorporate climate screening in order to ensure that such assets are able to support resilience in a changing climate (Tanner *et al.* 2007).

Social protection measures can contribute to asset accumulation, for example through unconditional and conditional cash transfers, micro-credit as well as the direct provision of livestock or poultry through asset transfer programmes. The Reducing Vulnerability to Climate Change (RVCC) project has explicitly mainstreamed climate change throughout its design and implementation. One adaptation strategy identified by the programme is the need to promote alternative livelihoods. The project encouraged the uptake of assets such as duck-rearing which would enhance income and prove to be resilient in the face of climate change (Mallick 2006).

11 Starter packs and seed fairs

In response to calls to develop and distribute crop varieties that are drought and saline resistant, programmes for the distribution of free inputs or inputs-for-work have become a common response

among development agencies. The distribution of fertiliser and seeds for free is intended to enhance food security by boosting food production among farmers who are unable to obtain such inputs.

As an alternative to traditional input distribution programmes, DFID has supported Catholic Relief Services (CRS) along with the Food and Agriculture Organization (FAO) and other local partners to implement a seed voucher and fair programme to 35,000 households throughout Kenya's semi-arid region in response to prolonged drought. Beneficiaries were given vouchers to purchase seeds at locally organised seed fairs. Farmers and local traders were encouraged to bring their surplus seeds to fair sites where voucher holders were able to select seeds of their choice. On completion of the seed fair, seed retailers redeemed their vouchers for cash. In contrast to the package of inputs approach, which can undermine biological diversity and leads to mono-cropping (Thompson *et al.* 2007), seed vouchers and fairs have encouraged farmers to maintain crop diversity on their farms, contributing socioecological resilience. Seed voucher and fair projects present a cost-effective way to assist post-disaster recovery and enhance resilience by promoting crop diversity and information sharing between farmers.

12 Cash transfers

Predictable cash transfers could play an important role in mitigating the vulnerability of the chronic poor who will increasingly be exposed to climate-related shocks and stresses. Reliable transfers (e.g. conditional cash payments, social pensions, child support grants) allow recipients to spread risk and plan spending and investment behaviour over longer timeframes, and evidence suggests these are more cost-effective than food aid. In Ethiopia, climate change, social protection and DRR have been combined through the Productive Safety Net Programme (PSNP), fostering improved institutional coherence. The PSNP is a cash (and food) transfer programme aimed at alleviating household vulnerability to seasonal food insecurity consumption across the hunger period, by providing seasonal employment on public works in exchange for cash or food transfers to help protect household assets and smooth a shift in thinking away from emergency food aid and towards a more predictable and targeted safety net.

Table 3 Benefits and challenges of social protection for adaptation and DRR

Social protection measure	Benefits for adaptation and DRR	Challenges
Weather-based crop insurance	Rapid payouts possible Guards against the adverse selection and moral hazard Frees up assets for investment in adaptive capacity Easily linked to trends and projections for climate change Supports adaptive flexibility and risk taking	Targeting marginal farmers Tackling differentiated gender impacts Affordable premiums for poor Subsidising capital costs Integrating climate change projections into financial risk assessment Guarantee mechanisms for re-insurance
Seed transfer	Boost agricultural production and household food security Post disaster response tool Seed varieties can be tailored to changing local environmental conditions Cost-effectiveness of seed voucher and fair projects Fairs promote crop diversity and information sharing	Ensuring locally appropriate seed and fertiliser varieties Protection of crop diversity Reduce distortion of local markets Focus on access rather than only availability Inclusive approach that draws in marginal farmers
Asset transfer	Ability to target most vulnerable people Easily integrated in livelihoods programmes	Ensuring local appropriateness of assets Integrating changing nature environmental stresses in asset selection
Cash transfers	Targeting of most vulnerable to climate shocks Smoothing consumption allowing adaptive risk-taking and investment Flexibility enhanced to cope with climate shocks	Ensuring adequate size and predictability of transfers Long-term focus to reduce risk over extended timeframes Demonstrating economic case for cash transfers related to climate shocks Use of socioecological vulnerability indices for targeting

So far, the programme has successfully prevented the use of damaging coping strategies during periods of increased stress. There is also some evidence that cash transfers can build assets or provide households with contingency finance for mitigating climate-related risks. But the timing has to be right, both in terms of coinciding with the hungry season and also making sure the amount of transfer takes adequate account of purchasing power, which can vary over the course of a year. The Government of Ethiopia is aiming to graduate all participants from the programme after five years. However, in a changing climate, social protection measures must reduce risk

and reduce poverty proactively over *extended* timeframes, particularly in ecological and social environments subjected to high states of flux (Tanner and Mitchell, this *IDS Bulletin*, 'Entrenchment or Enhancement').

13 Developing 'adaptive social protection'

This article illustrates the links between social protection, climate change adaptation and DRR in the context of agriculture. We have shown how current experiences of social protection have much to offer to protecting the poor against current (DRR) and future (adaptation) weather extremes. We also

suggest ways in which social protection programmes themselves can be made more robust in the face of current and future shocks. Similarly, adaptation and DRR cannot effectively address the root causes of poverty and vulnerability without taking a differentiated view of poverty, something that further integration with social protection can help with. We have identified how, by linking disciplines, a more coherent approach can be developed. This includes:

- **Climate-proofing social protection** through a long-term vision in the context of more reliable and accurate predictions and consideration of vulnerability
- **Policy and programmatic options** for social protection for climate change adaptation
- **A preventative and holistic poverty approach** for DRR
- **An improved growth focus** for agriculture.

By placing social protection in the context of the impacts of natural phenomena, particularly climate, on agricultural productivity and related livelihoods, we establish a framework for social protection measures that increases resilience to disaster risks, and acknowledges the changing nature of climate-related impacts including the future existence of conditions that have not been experienced before. This concept of *adaptive social protection* is characterised by a number of features that include:

- An emphasis on transforming productive livelihoods as well as protecting, and adapting to changing climate conditions rather than simply reinforcing coping mechanisms
- Grounding in an understanding of the structural root causes of poverty in a particular region or sector, permitting more effective targeting of vulnerability to multiple shocks and stresses
- Incorporation of rights-based rationale for action, stressing equity and justice dimensions of chronic

Note

- 1 Although, note a different perspective on this in Pierro and Desai, this *IDS Bulletin*, who point out the seeds were too old, so produced poor yields.

poverty and climate change adaptation in addition to instrumentalist rationale based primarily on economic efficiency

- An enhanced role for research from both the natural and social sciences to inform the design and implementation of social protection policies and measures in the context of the burden of both natural disasters and changing climate-related hazards
- A longer term and dynamic perspective for social protection programmes that takes into account the changing nature of shocks and stresses.

This is not to suggest that all DRR, adaptation and social protection work will, or indeed should, necessarily meet all of these characteristics. There are likely to still be roles for specific policies and instruments within each of the fields. However, this framework and analysis does permit the identification of a number of potential areas for future work that links these related fields together, and a number of ways to address the challenges of developing adaptive social protection in the broader context where agriculture is a part but not the only consideration. These include:

- Supporting collaboration between national and international actors by engaging in national and international events and conferences
- Improving the evidence base: lessons learned, poverty impact, growth linkages and cost effectiveness
- Developing tools and resources, for example climate risk assessment to identify a range of social protection options and practical guidance
- Capacity building
- Funding for adaptive social protection, integrating social protection into adaptation funding and vice versa
- Encouraging dialogue among the disciplines.

References

- Adger, W.N.; Agrawala, S.; Mirza, M.M.Q.; Conde, C.; O'Brien, K.; Pulhin, J.; Pulwarty, R.; Smit, B. and Takahashi, K. (2007), in M.L. Parry, O.F. Canziani, J.P. Palutikof, P.J. van der Linden and C.E. Hanson (eds), 'Assessment of Adaptation Practices, Options, Constraints and Capacity', *Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, Cambridge: Cambridge University Press, 717–43
- CPRC (2004) *The Chronic Poverty Report 2004–05*, Manchester: Chronic Poverty Research Centre, Institute for Development Policy and Management, University of Manchester
- Dorward, A.; Sabates Wheeler, R.; MacAuslan, I.; Penrose Buckley, C.; Kydd, J. and Chirwa, E. (2007) *Promoting Agriculture for Social Protection or Social Protection for Agriculture? (ii) Policy Approaches and Emerging Questions*, Future Agricultures Briefing Paper, www.future-agricultures.org/pdf%20files/Briefing_SP_2.pdf (accessed 6 August 2008)
- FAO (2005) 'Special Event on Impact of Climate Change, Pests and Diseases on Food Security and Poverty Reduction Background Document' 31st Session of the Committee on World Food Security, 23–26 May 2005, [ftp://ftp.fao.org/docrep/fao/meeting/009/j5411e.pdf](http://ftp.fao.org/docrep/fao/meeting/009/j5411e.pdf) (accessed 7 August 2008)
- Farrington, J.; Slater, R. and Holmes, R. (2004a) *Social Protection and Pro-poor Agricultural Growth: What Scope for Synergies?*, Natural Resource Perspectives 91, London: Overseas Development Institute
- Farrington, J.; Slater, R. and Holmes, R. (2004b) *The Search for Synergies Between Social Protection and Livelihood Promotion: The Agriculture Case*, ODI Working Paper 232, London: Overseas Development Institute
- Hellmuth, M.E.; Moorhead, A.; Thomson, M.C. and Williams, J. (eds) (2007) *Climate Risk Management in Africa: Learning from Practice*, New York: International Research Institute for Climate and Society (IRI), Columbia University
- Hess, U. and Syroka, J. (2005) *Weather-based Insurance in Southern Africa: The Case of Malawi*, Agriculture and Rural Development Discussion Paper 13, Washington DC: World Bank
- Mallick, F. (2006) 'Adaptation in Action: Community-level Adaptation Techniques in the Context of the Southwestern Region of Bangladesh – The Reducing Vulnerability to Climate Change (RVCC) Project', presentation at the International Workshop on Community Level Adaptation to Climate Change, Dhaka: Care Bangladesh
- McCarthy, J.; Canziani, O.F.; Leary, N.A.; Dokken, D.J. and White, K.S. (eds) (2001) *Climate Change 2001: Impacts, Adaptation, and Vulnerability*, Cambridge: Cambridge University Press
- Tanner, T. and Mitchell, T. (2008) *Entrenchment or Enhancement: Could Climate Change Adaptation Help Reduce Chronic Poverty?*, Working Paper 106, Manchester: Chronic Poverty Research Centre
- Tanner, T.M.; Hassan, A.; Islam, K.M.N.; Conway, D.; Mechler, R.; Ahmed, R.U. and Alam, M. (2007) *ORCHID: Piloting Climate Risk Screening in DFID Bangladesh – Research Report*, Brighton: IDS
- Thompson, J.; Millstone, E.; Scoones, I.; Ely, A.; Marshall, F.; Shah, E. and Stagl, S. (2007) *Agri-food System Dynamics: Pathways to Sustainability in an Era of Uncertainty*, STEPS Working Paper 4, Brighton: STEPS Centre
- UN-ISDR (2004) *Living with Risk: A Global Review of Disaster Reduction Initiatives*, Geneva: International Strategy for Disaster Reduction, United Nations Inter-Agency Secretariat
- Vatsa, K.S. (2004) 'Risk, Vulnerability, and Asset-based Approach to Disaster Risk Management', *International Journal of Sociology and Social Policy* 24.10–11: 1–48
- Wisner, B.; Blaikie, P.; Cannon, T. and Davis, I. (2004) *At Risk: Natural Hazards, People's Vulnerability and Disaster*, 2nd edn, London: Routledge
- World Bank (2001) *World Development Report (WDR) 2000/2001: Attacking Poverty*, Washington DC: World Bank