



CLIMATE CHANGE, CONFLICT AND FRAGILITY

Understanding the linkages, shaping effective responses

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EXECUTIVE SUMMARY

As climate change unfolds, one of its effects is a heightened risk of violent conflict. This risk is at its sharpest in poor, badly governed countries, many of which have a recent history of armed conflict. This both adds to the burdens faced by deprived and vulnerable communities and makes it harder to reduce their vulnerability by adapting to climate change.

Policy discussions about the consequences of climate change are beginning to acknowledge the conflict and security implications. These concerns, however, are not being properly taken on within the complex negotiations for a new international agreement on reducing global warming and responding to climate change. In the negotiating context, the discussion focuses on how much money should be available for it and how that money will be controlled. This discussion pays scant attention to the complexities of adaptation, the need to harmonise it with development, or the dangers of it going astray in fragile and conflict-affected states and thereby failing to reduce vulnerability to climate change.

In order to shape adaptation policies, it is necessary to go beyond the most immediate natural and social effects of climate change and look to the context in which its impact will be felt, because it is the interaction between the natural consequences and the social and political realities in which people live that will determine whether they can adapt successfully to climate change. Doing this means addressing the realities of the system of power in fragile and conflict-affected societies, a structure of power that often systematically excludes the voices of all but a privileged few.

Policies for adapting to the effects of climate change have to respond to these realities or they will not work. At the same time, the field of development itself will have to adapt in order to face the challenge of climate change. Neither development, adaptation or peacebuilding can be regarded as a bolt-on to either one of the other two. The problems are interlinked and the policy responses must be integrated.

This paper outlines the climate-conflict interlinkages and the challenges involved in responding to their combined challenge. Establishing the overall goal of international policy on adaptation as helping people in developing countries adapt successfully to climate change even where there is state fragility or conflict risk, the paper makes and explains eight specific policy recommendations:

1. Adaptation to climate change needs to be conflict sensitive – responding to the needs of the people, involving them in consultation, taking account of power distribution and social order, and avoiding pitting groups against each other.
2. Peacebuilding needs to be climate-proof, ensuring that its progress is not disrupted by the effects of climate change that could and should be anticipated.
3. Shifts towards a low-carbon economy must be supportive of development and peace – unlike what happened with the rapid move to biofuels.
4. Steps must be taken to strengthen poor countries' social capacity to understand and manage climate and conflict risks.
5. Greater efforts are needed to plan for and cope peacefully with climate-related migration.

6. Institutions responsible for climate change adaptation need to be structured and staffed in a way that reflects the specific challenges of the climate-conflict interlinkages. For this to be possible, institutions must restructure in such a way as to maximise the participation of ordinary people and build accountable and transparent public institutions.
7. Development policy-making and strategic planning henceforth, at both international and national levels, need to integrate with peaceful climate adaptation planning. Compartmentalisation between these areas is no longer viable.
8. A large-scale systematic study of the likely costs of adaptation is required, including the social and political dimensions along with economic sectors that have thus far been left out of most estimates.

List of keywords

Climate change, governance, institutions, aid effectiveness, conflict

1



INTRODUCTION

Climate change is already adding to the burdens that developing countries have to face. Its impact is hardest on the poorest and most vulnerable members of society.¹ Many of the worst affected live in fragile states. Their vulnerability is shaped not only by the persistence of poverty, the lack of good infrastructure, the difficulty of getting a foothold in the world market, and thus the intractability of underdevelopment, but also by the fragility of state institutions, the instability of political arrangements, and the effects of recent armed conflict or threat of looming violence. In many, as climate change interacts with other features of their social, economic and political landscape, there is a high risk of political instability and violent conflict. Whilst those working in international development universally agree that the poorest will be worst hit by climate change, there is no clear acknowledgment of how to deal with the issue of fragile states in negotiating the post-Kyoto deal on climate change.

The monumental task of the Parties to the UN Framework Convention on Climate Change (UNFCCC) is to come up with the next global agreement on mitigating global warming and responding to climate change. This process is likely to go well beyond the milestone of the 15th Conference of the Parties to the UNFCCC in Copenhagen in December 2009. The complex and highly political negotiations have become heavily polarised between rich and poor states over the issues of legally-binding greenhouse gas reduction targets for developed countries and commitments for adaptation funds and technical support from rich to poor countries. Nevertheless, the impacts of climate change are manifesting daily. As they become increasingly unmanageable, the dramatic consequences for human well-being, the environment and peace and security will only worsen.

In 2007, International Alert published a report – *A Climate of Conflict* – that both established the links between climate change and conflict and identified the outlines of a policy response.² The present report takes that analysis as its starting point and will not repeat the evidence and arguments that show that the knock-on consequences of climate change include a serious risk of increased violent conflict.

This paper begins by outlining the interlinkages between climate change and conflict and explains the issues involved in responding to this double challenge. Based on this analysis, we set out five key policy objectives and a set of related practical considerations for implementation to help inform the broad range of actors who are – or should be – concerned with the climate change debate.

2

THE INTERLINKAGES BETWEEN CLIMATE CHANGE AND CONFLICT



2.1 The place of security in the policy discussion

Attention to the security implications of climate change is slowly increasing among politicians and strategists in the developed world, but the issue remains the elephant in the negotiating room. Specialists in climate change are not generally well informed about it and nor, very often, are development specialists. At least the latter agree that the poorest will be worst hit by climate change, but they have not resolved how to deal with the issue of fragile states in climate negotiations, and there is little agreement among them on how to pursue development goals in such countries.

It is essential to address this issue, but necessary to do so carefully. The potential conflict implications are among the most compelling arguments for rich states to take action against climate change. But there are three notes of warning.

First, there is the risk of over-stating the conflict dimension in an attempt to persuade a sceptical, even disaffected or merely ill-informed public to support cuts in carbon emissions. Fuelling fears that climate change will generate threats like terrorism and mass immigration³ will lead to oversimplified and inaccurate perceptions of the security angle. In the political debate, exaggerated positions will inevitably be vulnerable.

Second, securitising the issue runs the risk of a damaging response that overlooks cost-effective and sustainable options in favour of high cost and probably ineffective military ones. The point here is that policy responses must be based on a thorough understanding of how impacts of climate stresses can compound some of the root causes of conflict. Effects of climate change such as more frequent natural disasters, long-term water shortages and food insecurity could combine with other factors and lead to violent conflict. The reason why this can happen lies in the context of poverty, weak governance, political marginalisation and corruption. These factors drive conflict and limit the capacity to adapt to climate change. Policy responses need to look not only at the immediate risk of violence, for example by reforming the security sector, and not only at the specific environmental impacts, for example by taking steps to reduce the risk of disaster, but also at the broader context of failures of governance.

Third, climate negotiators have not paid attention to fragile states and conflict risks. Most negotiators are climate and legal experts whose remits do not extend beyond the talks. They have neither the incentive nor expertise for taking account of the complex web that links climate, conflict, governance and development.

To develop a response to this challenge means focusing on the social, economic and political consequences of climate change – and recognising, equally, that social, economic and political issues influence the impact of climate change on people's lives. This is relevant to but wider than the discussions on the post-Kyoto deal. It is relevant for all engagements in states vulnerable to climate change. It means going beyond questions about how to raise funds for climate adaptation and mitigation, to thinking about how the money should be used and what governance and institutional changes must be made. It means considering the role in these issues of a wide range of actors from the development and peacebuilding communities and the private sector.

This paper aims to discuss the interlinked policies that are needed to address these interlinked problems. Two points are worth highlighting at the outset. One characteristic of both analysing

problems and proposing solutions in this context is to focus on the interlinkages. We are not looking at climate change alone, nor conflict or governance alone, nor at issues of poverty and livelihood alone, but at each in combination with all. In doing so, we have to acknowledge the inadequate track record of development assistance in achieving coherent sustainable development across different sectors. Some approaches have worked; others promote discrete and conflicting responses. Policy-makers need to be aware of these lessons and apply them when planning policies and structures to respond to climate change to avoid repeating the mistakes of ineffective development over the past 20 years.

A second particularity of discussing climate change is the ambience of uncertainty. It is not known precisely what impacts governments and international institutions need to prepare for. This applies both to the physical effects of climate change and even more so to the knock-on social consequences, as well as to the lack of clear and tested policy prescriptions to guide the response. Policy responses need to be discussed, resourced and implemented despite uncertainties in the basic evidence. Institutions involved need to adapt and evolve to accommodate such responses in a way that permits flexibility, experimentation and adjustments as they go along.

2.2 Conflict risk

The impact of climate change will exacerbate the vulnerability of people and communities to varying degrees. In some situations it will cause extreme disruption with which people simply cannot cope as it overwhelms them and renders their homes and livelihoods unviable. If the governance structures that the community looks to as safeguards are not up to the task, climate change will weaken confidence in the social order and its institutions and damage the glue that holds societies together. This is a particular problem in fragile states where governance structures and institutions are often weak, regardless of climate change.

It is impossible and unhelpful to offer generic scenarios of how climate change will interact with other variables to increase conflict risk, since impacts will always depend on context. That said, it is possible to trace out some broad knock-on consequences that serve to illustrate some of the risks that may arise.

Water is a key resource for agriculture, industry and daily use and climate change will significantly affect its supply. Worldwide, 500 million people live in countries where supply is chronically short;⁴ the Intergovernmental Panel on Climate Change (IPCC) predicts these numbers will rise as climate change affects surface water levels that depend on rainfall and glacial melting.

There are several sources of conflict risk if water supply is inadequate. A key problem is poor management that either wastes water or politicises the issue and seeks a scapegoat to blame for shortages. Conflicting claims to water resources have generally not led to violence between states – the record of settling disputes is largely positive, in fact – but there remains a considerable risk of conflict within states as different groups contend for diminishing water resources. Even where these do not lead to open armed conflict, they may well feed pre-existing tensions and exacerbate the fragility of state institutions. Tensions over water can be also worsened by privatising control of the resource without looking after the rights of the poor.⁵

Directly related to the issue of water is agriculture. Disruption in the agricultural sector can quickly affect food security, especially for the poorer sections of society. As poor communities seek new ways of securing food supplies, there are often clashes with the needs of other communities. In Africa's Sahel region, desertification is reducing the availability of cultivatable land, leading to clashes between herders and farmers. In Northern Nigeria, Sudan and Kenya, the state is unable or unwilling to contain and manage the conflicts and these clashes have become violent.⁶

Climate change will pose significant risks to human health. Some regions are likely to have a higher incidence of water-borne diseases such as cholera. Increased natural disasters such as storms and cyclones will lead to increased casualties, putting pressure on already stretched medical resources. Heatwaves and water shortages will have an adverse impact on safe drinking water and sanitation, with disproportionate effects on the poorest and most vulnerable. Increasing food insecurity may also result in changes of diet that have an adverse effect on health and resistance to disease.

Failure by the state to provide for basic water, food and public health erodes the social contract between state and citizens. A declining capacity to meet such basic needs is an indicator of increasing fragility – witness the cholera epidemic in Zimbabwe in 2009. A general decline of public confidence in state authorities, whatever its proximate source, increases the risk of instability and conflict escalation.

As these challenges unfold, the issue of migration arises. There is wide consensus that climate change will interact with other issues which inform a migrant's decision to move.⁷ There is also consensus that climate-related migration will be a significant conflict risk.⁸ Migration in itself need not be a destabilising factor; it often benefits both those who move and the communities and countries where they arrive. But there is often great difficulty in accepting immigration, especially when newcomers are seen as an unwanted burden, which is especially the case when groups in search of new livelihood options move to areas that are themselves barely viable. Their arrival can compound social pressures, as in Assam and Bangladesh, for example.⁹ In this way, migration can transfer conflict risk from one location to another; the risk travels with the people.

A significant if unpredictable proportion of this migration will be to urban centres. While even rapid and major urbanisation in prosperous, stable countries can be accomplished without violent conflict (think of Japan, for example), the process is more difficult in poor and unstable countries. Migration pushed by climate change will in some places increase the extraordinary strains of trying to maintain livelihoods in mega-cities and sharpen the conflict risks driven by those pressures. Further, many mega-cities are in low-lying coastal areas at long-term risk from sea-level rises.

2.3 Climate change in fragile states

This brisk look at risk transmission shows that adapting to the consequences of climate change will require social adaptation to social consequences. This means policy responses must look beyond climate change impacts to look at how societies are organised and especially at the question of power. In countries that are conflict-prone and marked by state fragility, it is not really possible to analyse the problems of climate change or figure out what to do about them without addressing how power is organised. This is often referred to as an analysis of the political economy.

One characteristic of fragile states is that the political and economic elite is organised so that it has privileged access to economic and political opportunity – so it can keep power, in other words. This predominates over the principle that society's leaders should provide for the most basic needs for their poorest citizens. It also complicates the received wisdom in development practice that prioritises putting development assistance funds into the hands of recipient state governments. It is, therefore, important to look at what effect climate change will have on the ability of social elites to retain or capture economic and political resources.

Climate change will generate fluctuations in the supply of key resources such as water and that in turn will affect land values. Both these effects present money-making opportunities to the rich and resourceful. Adaptation to climate change will be implemented through the provision of goods and services, for which there will be contracts funded by government, providing plenty of opportunity for money-making, both licit and illicit. In other words, as far the crucial issue of natural resource management is concerned, climate change offers further opportunities for elites to continue what is essentially business as usual.

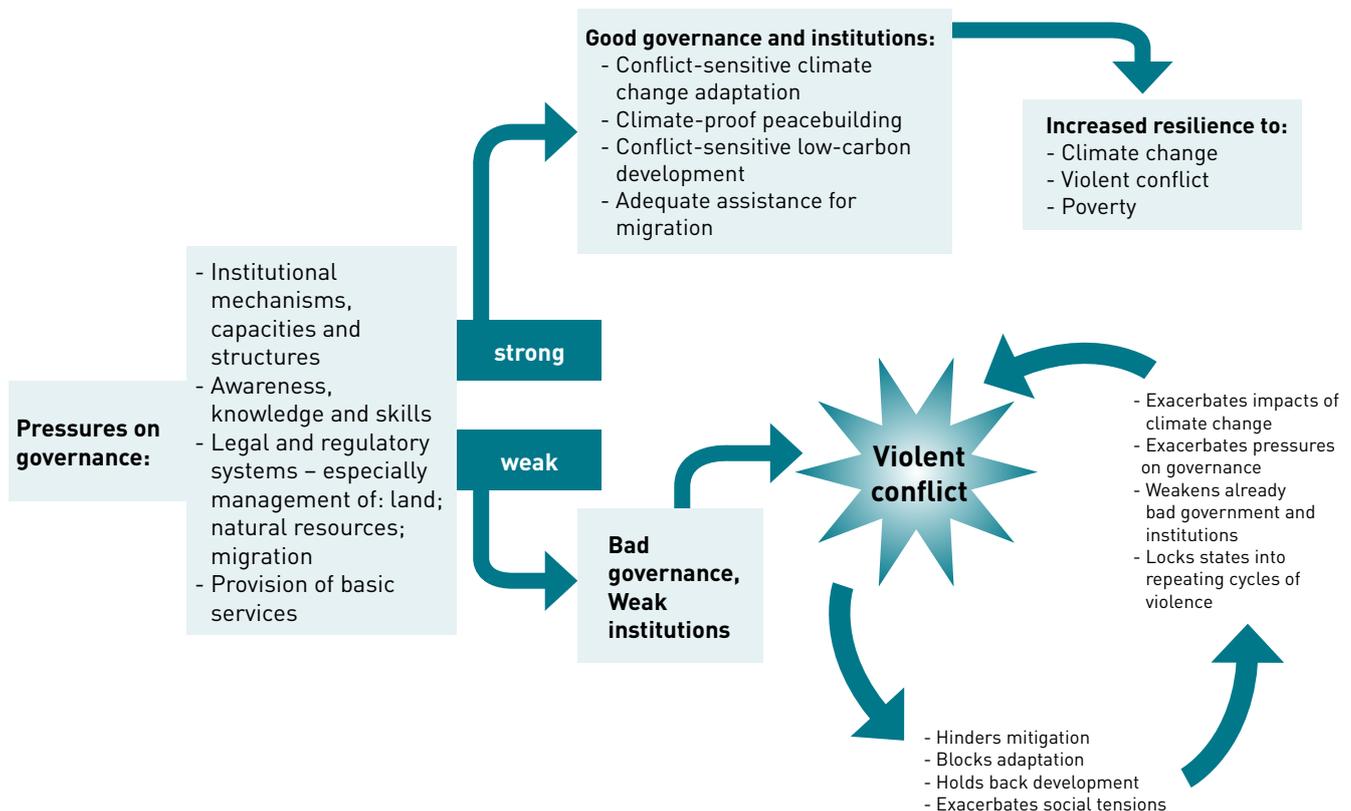
This has a major effect in shaping the impact of climate change. Neither the physical effects nor the knock-on social and economic consequences of climate change will be randomly or “fairly” distributed across the population. It is almost a truism to say that climate change will hit the poorest hardest – and this is because of the way societies are organised. As a result, government authorities may be less likely to react in timely and constructive ways to the increasing pressure of climate change. Even in democratic societies, the ability of the elite to dominate political debate means that the concerns of more marginalised members of society are regularly pushed to one side. In less democratic societies, that happens to a much larger degree. So if the social and political elite are doing all right amid climate change, the incentive for the government to take far-reaching measures will be weak to non-existent.

Thus the issue of governance comes into focus. Failures of governance lead to failures in adaptation to climate change, from which the poor and the marginalised suffer most. State fragility means that there is little or no social safety net to ease the effects of failing to adapt to climate change.

Out of this interaction between state fragility and resource capture by elites comes heightened conflict risk. The case that there is a greater risk of violent conflict in poor countries is well-established.¹⁰ The reason for this is not simply that poor people are more desperate and more easily recruited into armed groups. Key parts of the reason are the marginalisation of the poor, their lack of voice, and lack of an accessible institutional framework for handling and settling conflicts and disputes. Poverty, state fragility and a propensity to violent conflict make a vicious circle, full of negative feedback: each feeds on the others.

Figure 1 indicates one way of understanding not only this problem but also how to intervene to increase the chances of peacefully adapting to climate change. It depicts the quality of governance as a key determinant of which road is taken. The goal of policy is to block one road and direct all traffic down the other. We identify policy implications and obstacles to implementation related to this goal in the following section.

Figure 1:



3



THE INTRICACIES OF ADAPTATION

3.1 Ensuring the right approach for action

The lead-up to the Copenhagen Conference of Parties to the UN Framework Convention on Climate Change (UNFCCC) has seen a good deal of discussion about how to harness sufficient funds and technology to assist developing states with adaptation to climate impacts. This is the right objective, but achieving it will be a good deal more complicated than it sounds. Why? Because adapting to climate change is essentially about adapting development. The question is not ‘how institutions as they are presently organised can meet the challenges of climate change’ but rather ‘how should institutions be organised in order to meet these challenges’. This calls for a rethink of development in a carbon-constrained and increasingly fragile world. The reasoning behind this call rests on three key concerns.

The primary concern relates to aid effectiveness. Vast amounts of money will be spent on adaptation; exactly how much is required is still being disputed (see Section 3.2 for discussion) but all the estimates currently being discussed are for at least tens of billions of dollars a year. It is axiomatic that this money must be used in ways that, by encouraging the necessary cooperation across sectors and between different actors, address the problems in interlinked ways, supporting adaptation, peace, good governance and development simultaneously.

The aim is easily stated but there is a problem. Policy development on the intersection between climate, conflict and state fragility is at an early stage among those few donor governments that are addressing the issues.¹¹ Many governments are currently re-calibrating their policies, both domestic and international, to address climate change. As they think the policy through, the donor governments and multilateral agencies will presumably try to adhere to the norms of aid effectiveness; that is to say they will seek to promote coordinated, complementary and coherent efforts¹² between different donors, between donors and recipient state priorities, and between climate change and development policy processes.

This is right in principle; in practice, the issue is often addressed too narrowly, focusing on delivery and thus on getting the aid money to the right destination. This often leads the discussion of effectiveness into the issue of corruption. While corruption is a serious problem and a significant hindrance to development, it is not the core issue. Whether or not aid money goes into the wrong pockets, development can go astray because development projects are handled so as to support a social status quo in which narrow elites perpetuate their power and privilege at the expense of ordinary citizens. That does not necessarily entail individual corruption but, to the extent that the inflow of aid expenditure benefits that elite and helps it hold onto power, it is indeed a corruption of the idea of development and the purposes of development aid. And if this is happening, adaptation will not be happening.

The second and related concern for rethinking development relates to linked sectoral approaches. It is essential that the climate change adaptation financing and disbursement mechanisms do not lock in policy responses that look at climate change impacts in isolation. A measure that is addressed at a specific physical vulnerability related to climate change – improved water management, for example – must be shaped by the understanding of not just water systems, but also of systems of power and equity. Water can be managed so that all have equal access, or so that the rich have access and the poor do not. Without bearing these implications in mind, a scheme for improving water management could, depending on its details, exacerbate conflict in a fragile state. Recognising this, those who are planning water management should be drawing

everybody who stands to lose or gain, including marginalised groups and the private sector, into a discussion about the best way forward. Such an approach goes against the political grain in fragile states so it will need effort, coordination and political will amongst donors and, where possible, recipient governments to make it work. Simply throwing money at the problem is not a solution.

In short, interlinkage is everything and everywhere. The water problem cannot be solved by focusing exclusively on water. The same is true of agriculture, livelihood, disease and migration: addressing them in isolation from their context is not a solution and accordingly it is not an option. And what is needed is not just a case of linking activities between traditional development sectors such as water, food, health and education. It is bigger than this. It requires connecting up development sectors with environment, trade, peacebuilding and post-conflict sectors.

The third concern for rethinking development is about institutional mechanisms. The keynote of the policy approach must be linked responses to linked problems. Peacebuilding must be shaped by the requirements of adaptation, the approach to which is shaped by the needs of state-building, and so on. This requires a shift in policy and practice, for example applying conflict sensitivity to climate change adaptation processes, conducting climate change impact assessments to post-conflict reconstruction projects, and readjusting notions around post-conflict sequencing to ensure climate change is factored in throughout.

A shift in practice on this scale will necessitate institutional innovation. All other things being equal, if existing organisations are asked to work in new ways on new tasks, they will make only those changes in their behaviour that are easy to absorb. To get institutions to do things differently means getting them to be different; as institutions they need to change in order to take on very new agendas.

3.2 The scale and scope of funding

It is not possible to discuss the wholesale changes in approach needed to get adaptation right without a note on climate finance. Two important questions are the scale of funding (how much?) and its scope (what for?).

As to scale, the UNFCCC has been using a very broad estimate of US\$49–171 billion a year by 2030. This is indirectly derived from World Bank studies in 2006 that produced a much lower range of estimates; it is also much higher than the figure in the Stern Review.¹³ These figures are dauntingly high, but a critique published in August 2009 pointed out that none of the current estimates, which borrow from each other, have been independently reviewed.¹⁴ Further, most estimates do not include all sectors; indeed, almost all ignore private-sector activities and peacebuilding. Moreover, they do not make allowances for inadequacies in social and economic investment in vulnerable states to date – that is, they do not account for the particular circumstances and subsequently higher costs of adaptation in fragile states where the infrastructure is meagre or nonexistent. These deficiencies in current estimates are especially worrying if these are the figures that financing negotiations are being based on. The authors of this review indicated that actual adaptation costs could be in the range of US\$330–380 billion a year by 2030¹⁵ – that is, at least twice as much as the top end of the UNFCCC estimates. However, it needs emphasising that this was not a definitive estimate; this was a study done with limited resources, and is a critique of previous studies but no more. What is needed now is a properly resourced, large-scale and comprehensive study of the costs of adaptation.

The debate about adaptation funding has been partly shaped by the concern of many in the development community that official development assistance (ODA) from developed to developing countries should not be “raided” to meet the climate bill. If rich countries are going to pay the bulk of the costs of adaptation, this means new and additional funding for climate change, so as

not to undermine the commitment donor governments have made to spend 0.7% of their national income on ODA.

This approach seems to assume there is a fixed sum of ODA that is fully absorbed meeting established needs, so the adaptation bill comes on top. But the commitment to increase ODA to 0.7% of donor countries' annual GNI was a politically amenable target – no more and no less. At no point since it entered the political discourse some 40 years ago has the 0.7% target reflected precise calculations of need in developing countries. The sum of money that 0.7% of GNI will represent is going to vary according to the economic performance of each donor country. Need in developing countries may also vary but not in line with rich countries' economic performance. The 0.7% commitment simply does not and cannot reflect an agreed level of need to which to respond; it is, rather, an agreed, arbitrary and variable level of response.

It is important that we do not get carried away with setting another random target not backed by credible evidence on the costs of climate change adaptation, which like the 0.7% legacy focuses energy and attention on agreeing to a politically amenable target (which is not met) rather than on substantive efforts to tackle the problem through *existing* as well as new and innovative funding flows.

In addition, the critique of the UNFCCC estimates for adaptation costs reveals the enormous scale of adaptation. It would be getting things completely out of proportion to regard adaptation as a bolt-on. The fact is that development needs to adapt in order to meet the challenge of climate change. This does not mean that development goals have to be abandoned, but that the way of meeting them has to include also meeting the objective of adaptation. We go into this in more detail in Section 4.

The heavy emphasis on 0.7% not only exaggerates the status of an arbitrary figure, it also risks distorting people's understanding of the relationship between adaptation and development. The call for keeping the two separate in order to protect development is fundamentally misconceived. Development must be protected and strengthened by integrating it with peaceful adaptation and funding the whole enterprise properly.

This in turn means that we need a proper discussion of the scope of adaptation, that is, what adaptation funds can be used for. Is there a shared vision amongst donor and recipient states, and if so, what are the parameters of this vision? Even in the (perhaps unlikely) event of a shared vision emerging, the narrowly technical focus of current adaptation discourse leads us to believe that the vision is unlikely to cover all the necessary issues.

Experience from the Millennium Development Goals (MDGs) shows that framing development in quantitative and technical terms tends to skew response towards projects and funding instruments that are technical in nature. The emphasis on meeting quantitative targets distracts effort away from achieving sustainable and politically-grounded results. The MDGs work fine as an aspiration but not so well as a guide to scope and purpose, and once expressed in quantitative targets have become positively misleading. Likewise, we should be wary of apolitical, quantitative and technical approaches to climate change adaptation.

There is a considerable degree of agreement with the proposition that existing institutional arrangements for financing climate change adaptation are nowhere near workable.¹⁶ In trying to work out more suitable institutional arrangements, form and function cannot be divorced. Without a clear understanding of the purpose of these funds, efforts to ensure that implementing institutions are “fit for purpose” will clearly be ill-fated.

There is little current discussion, for example, of whether adaptation funds can be used for political as well as technical solutions. The political dimension of climate change adaptation, just

like the inherent political nature of development, is an incontrovertible fact which needs to be taken on board with some urgency.¹⁷ Without addressing the underlying causes of vulnerability to climate change – which are largely political, grounded in a state's (in)ability to carry out its core functions – technical fixes will only act as sticking plasters. This is going to be especially pertinent in fragile and conflict-affected states.

The issue of politics and governance must be included within the scope of adaptation funding. This requires an honest debate about the right approach to building resilient societies and states alongside a large-scale multi-sector study of adaptation costs that acknowledges political and economic change within the scope of adaptation.

The intricacies of adaptation help us understand the required scope of adaptation funding and what is needed for effective responses. These issues are taken up in the two following sections; Section 4 looks at the agenda for action and Section 5 looks at the institutional changes required to underpin the new agenda.

4



AGENDA FOR ACTION

4.1 The policy goal: Building resilience

The appropriate overarching goal of international policy on adaptation is to help people in developing countries adapt successfully to climate change even where there is state fragility or conflict risk. This goal implies several second-level objectives.

Vulnerability to climate change is normally treated as the product of three factors – exposure, sensitivity and adaptive capacity.¹⁸ The first issue is whether a location is exposed to physical effects of climate change – the lottery of geography. The second is how sensitive it is to that exposure – whether it is low-lying, for example. And the third issue is whether there is adaptive capacity that permits preparation, timely response and relatively rapid recovery. Adaptive capacity is the side of this triangle of vulnerability that policy responses can get at.

Faced with climate change, societies will inevitably adapt. The issue, however, is how they do so. Fighting over shrinking resources and mass abandonment of locales that are no longer viable are two means of adaptation – but in a form that is actually or potentially violent and carries great risks of further loss and destruction. Adaptive capacity is, by definition, the capacity to adapt peacefully and successfully.

Some modes of adaptation are not only effective in their own terms, but can also contribute to building peace and making states less fragile. For example, integrated natural resource management systems involve local communities and government authorities in discussing how to manage a key resource such as water. Doing this can create lines of communication between different and hostile user communities who then engage in increased dialogue and cooperation through the process.

Beyond such serendipitous synergies, the aim of climate change adaptation in fragile states should be to build the capabilities a society needs so it can handle the broad range of risks and uncertainty that ensue from climate change. It is building resilience writ large. Beyond the ability to protect citizens from specific threats, this means being able to prepare for events that cannot be predicted. Beyond being able to implement plans under extreme pressure, it means the ability to invent responses as the need arises. It is resilience in a broad sense – the capacity to absorb stress, to keep basic functions going even during disaster, and the ability to recover. In principle, the idea of resilience is relevant for thinking about a society's ability to cope with everything from natural calamities to economic shocks, conflict, and slow onset changes in the natural environment. Such a society can handle conflicts that arise without resorting to violence.

To help this social capability come into being is one way of understanding the goal of development assistance; the way to bring it about, it could be argued, is through development assistance as it should be done, that is, coordinated across all sectors, sustainable and participatory.

4.2 Policy objectives

To meet the goal of helping people in developing countries adapt successfully to climate change even where there is state fragility or conflict risk, five policy objectives are important. Each is a component of developing the capabilities required to manage and reduce risk.

4.2.1 Conflict-sensitive adaptation

Measures taken to adapt to the effects of climate change need to be conflict sensitive.

Conflict sensitivity means being aware of the causes of potential conflict in a given location; it involves understanding the operational context and the effects of working in it, and on that basis, developing a capacity to avoid negative impacts and maximise positive ones.¹⁹ For example, where water resources have to be managed because they are otherwise insufficient, the process must respond to the needs of the people, involve them in consultation, and avoid pitting groups against each other. The provision of technical assistance to one group can increase tensions over equity and resource allocation amongst this group and between it and other groups. Since violent conflict has such a crippling effect on communities' and governments' abilities to adapt to climate change, these unintended consequences have a doubly negative impact: they increase vulnerability to both conflict and climate-change impacts.

Over the past decade the international community has increasingly recognised the need to minimise the potential negative impacts of its work and has slowly begun to act on the basis of that understanding by adopting what is known as a "do no harm" approach. Slowly, some development agencies are beginning to adopt a conflict-sensitive approach which involves scrutinising the potential positive and negative impacts of their work on the conflict context and vice versa. Similarly, agencies responsible for programmes of adaptation to climate change should take steps to ensure that at a minimum they do no harm and, ideally, have a positive impact on the contexts in which they work.

The challenge of conflict-sensitive adaptation, however, goes further than this; what matters is not just ensuring that specific activities are designed with awareness of the context but, more ambitiously, working out how to re-shape the context to offer fertile ground for peace. The UK Department for International Development (DFID) is among those agencies where there is discussion of an approach to adaptation that puts long-term resilience at the base. On this it aims to build better protection for the most vulnerable, on top of which targeted responses address specific climate-change risks. Against a background of state fragility and conflict risk, the challenge is not just to operationalise this resilience-protection-response model, but to contribute to creating the conditions that make it possible. The aim should be to work in a

CASE STUDY: River management and flood risk in Nepal

When the Koshi River which flows through the Eastern Terai region of Nepal flooded in summer 2008, it displaced more than 60,000 people, damaged the national highway, and destroyed crops.²⁰ Since then, major concerns have been voiced that the fragile embankment will break in more places, flooding an even greater area. The severity of risk is closely linked to the poor maintenance of dams and river barriers. Responsibility thus ultimately lies with the government. These risks in the Terai are particularly sensitive because, despite the comprehensive peace accord of 2006 that ended the Maoist insurgency, there are now estimated to be 35 armed groups active in the Terai. The immediate legacy of the ten years of civil war includes bitter political rivalries between some of the political parties and a tendency to relatively low-level violence between their militant youth wings.

In 2008, an Indian firm was contracted to repair

the Koshi barrage. The work was held up by labour disputes that the firm could not settle because of the rivalries between the unions, linked to rival political parties. Nor was it possible to get the district authorities to resolve the issues. And because the barrage was not repaired, it broke.²¹

The challenge of managing the Koshi requires a framework of well functioning state regulation. Specifically, an effective river-management scheme would reduce the discontent caused by the massive socio-economic consequences of flooding. This is only possible if the political parties cooperate, suspending rivalries in the name of the people's interest. This would increase confidence in the political process and in the possibility for state institutions to rise above party differences, which in turn could lubricate the crucial peacebuilding and state-building task of writing a new national constitution.

way that does both. For this to be possible, responses should actively contribute to the system of governance and the relationship between citizens and state. As such, adaptation measures must be based on a rounded analysis that addresses not only the climate challenge, but also the difficulties that arise from conflict risk and state fragility and undermine the foundations of resilience-protection-response.

4.2.2 Climate-proofed peacebuilding

Peacebuilding needs to be climate-proofed.

If adaptation has to be conflict sensitive, the other side of the coin is ensuring that peacebuilding is designed with sensitivity to climate change. For example, re-integrating ex-combatants in society is an enormously complex task requiring that people transform their identities from fighters to citizens and members of families and communities.²² At the same time, internally displaced peoples and refugees may be returning from camps, seeking to pick up the strands of their interrupted lives and needing secure livelihoods. Where agriculture is a key element of this – either as a form of livelihood, or as the basis of a community, or simply as the means of providing food – it is essential to know from climate projections whether specific agricultural produce is likely to be viable in the long term. If not, the result will be further disruption in a context made volatile by the frustrations of recent ex-combatants, the fears of those who were recently victims, and the difficulties of social and economic reconstruction. So planners and implementers of peacebuilding and post-conflict activities need to have the relevant knowledge and capacity to integrate climate-change considerations into programming.

In Liberia, the process of recovery from war includes encouraging both ex-combatants and former IDPs to return to their place of origin and resume their lives there. There are many difficulties, not least the reluctance of some ex-combatants to go and to stay, and the reluctance of some communities to accept them back. Leaving community reintegration to one side, there is also the issue of economic reintegration. When returnees go back to rural villages, the basic livelihood will be agriculture. But the Intergovernmental Panel on Climate Change (IPCC) has reported projections of climate change reducing crop yield by 50% by 2020 in parts of West Africa.²³ The prospect arises of returned fighters becoming resentful, unemployed farmers, and thus potential recruits, with their combat experience, in a new conflict.

One way to address these issues could be by learning from the success of the participatory approach of forest-user groups in Nepal. These groups now involve over 40% of the population, which means about 60% of the rural population, and they have successfully decelerated the rate of deforestation.²⁴ It is the combination of practicality and participation that makes this kind of approach attractive. In the Liberian example and similar rural settings, the technical aspect of adaptation should include options for new farming techniques, alternative crop selection, and shifting from crops to animal husbandry. These options will be taken up more smoothly and will function more efficiently if they are based on well-informed and fully analysed decisions taken and implemented by the people whose well-being is most directly at stake – the farmers and their communities and the returnees themselves.

CASE STUDY:
Climate-proof
reintegration of
ex-combatants
in Liberia

In Darfur peacebuilding has for some years meant attempting to hold back the onward surge of violence. Wood in the camps is being used at an unsustainable level, especially in the many camps where manufacturing bricks is a livelihood. This leads to local deforestation, so IDPs have to walk further to find wood – as much as 18 kilometres from some camps.²⁵ As women and girls perform much

of this task, they have become more vulnerable to attacks and rape by the militias. Moreover, when the wood runs out the camps have to move, causing more pressure on the environment. Climate-sensitive approaches to peacebuilding in the Darfurian IDP camps must take account of these gender-specific risks and generate options for alternative livelihoods.

CASE STUDY:
Gender
implications
of climate
change in
Darfurian IDP
camps

4.2.3 Development- and peace-friendly low-carbon economy

Rich countries' efforts to shift towards a low-carbon economy must be peace-friendly and supportive of development.

If all goes well with the UNFCCC, the rich, developed countries will focus on mitigating global warming by reducing carbon emissions, will fund their own needs for adaptation, and will support adaptation in poorer countries. Meanwhile, the poor, developing countries will not need to do so much on mitigation and will focus on adaptation with international support. But in a globalised world, such neat demarcations break down. Decisions taken in developed and fast-developing countries have significant effects on poorer countries via the mechanisms of market and investment. Decisions to embark on a low-carbon economic pathway must take into account the development and peacebuilding needs of the more vulnerable.

Biofuels offer an outstanding illustration of the problem. Several recent studies, including one by the World Bank, show how large-scale biofuel production has affected poor farmers' and indigenous peoples' access to land in Africa (e.g., Mozambique, Tanzania), Asia and the Pacific (e.g., India, Indonesia, Papua New Guinea) and Latin America (e.g., Colombia).²⁶ It was estimated that the diversion of food crops and land use for the production of biofuels in these places accounted for up to 30 percent of the rise in food prices during 2008, which in turn caused violence in over 30 countries. Oxfam estimated that expanded biofuel production pushed about 30 million more people into poverty and threatened the livelihoods of almost 100 million.²⁷

The World Bank's *World Development Report 2010* promotes market-based responses to dealing with climate change, focusing on low-carbon development paths within G-77 states.²⁸ Current research suggests that creating markets for low-carbon technologies will in turn create new job opportunities and that these will be greater than the number of jobs lost in carbon-intensive sectors. If managed equitably, low-carbon development can promote sustainable peace.²⁹

However, it must be remembered that with development, peacebuilding and indeed climate-change adaptation, specific country context is everything. Whilst developing countries are nominally operating as a block as the G-77 within the UNFCCC, the fact is that low- and middle-income countries within the G-77 have increasingly divergent interests on climate change. A core divergence is on how climate funding is spent. A one-size low carbon model will certainly not fit all the G-77 member states. Middle-income countries want to see a lot of cash being pumped into low-carbon development programmes that will help them to grow and to access clean technology, whereas low-income countries are far more concerned with adaptation.³⁰ This difference must be taken into account when designing the architecture for assistance to G-77 countries. Whilst low-carbon development is a real long-term priority, the more immediate needs of low-income and fragile states for adaptation must also be considered and addressed with equal weight.

4.2.4 Stronger risk management

Steps must be taken to strengthen poor countries' social capacity to understand and manage climate and conflict risks.

A society can manage the risks it faces and minimise its vulnerability to them if it has the capacity to understand the risks and the resources to respond. There is a need for scientific capacities to analyse the issues, for institutions that can plan and act on the basis of knowledge, and for public awareness of the issues thanks to good communications and transparency. Children as well as adults can understand flood risks and, with a little help, learn how to plant natural flood barriers, prepare evacuation plans and learn new farming techniques that deal better with changed patterns of rainfall.³¹ Education is as important as technical flood defences and public knowledge must be supplemented with alternative livelihood opportunities. On a local level, this is the social basis of resilience.

This approach is familiar in the literature on natural disaster risk reduction but there is no reason why it cannot address a broader range of risk, including violent conflict and economic shocks. Part of its value is that its success depends on widespread cooperation – between individuals, communities and institutions, between citizens and the state, and between different political actors whatever their other rivalries and disputes.

This cooperation is premised on the existence of trust between different groups. Without trust, there is no reason why a village elder for example should act on well-intended early warnings about future climate change threats from an outsider whom he neither knows nor respects. Furthermore, this outsider information may be at odds with traditional coping mechanisms which have served his community for generations. The top-down imposition of new climate knowledge upon communities is likely to be ignored or received with contempt and reluctance to change. But done properly, an inclusive and context-sensitive process of knowledge gathering and sharing builds long-term habits of cooperation and practical conflict settlement that can have great pay-offs in the effort to build a peaceful society and a responsive state. Policy-makers must ensure that consideration is given not just to enhancing climate information, but to ensure that the appropriate conditions are in place for this information to be acted upon.

People must both understand and trust the climate information they receive if they are to respond in an adequate manner. In 2000, the Limpopo river basin in southern Africa experienced a very substantial rainfall for many days as a result of unusual cyclone activity. Experts knew that it would result in serious flooding – of a magnitude never experienced before by rural communities in Mozambique. Yet very few villages were informed about it.³²

Most communities had no electricity or radio, yet people were usually able to successfully predict floods by observing ants. Ants build their homes underground; when groundwater rises, they leave their nests – and people know that the water is rising. On this occasion, the flood came so rapidly there was no time for the groundwater to rise, or for ants to react before the river overflowed. When someone who had heard the experts' prediction drove to a

certain village to tell them to evacuate, the local chief asked him, 'Who are you and why should I do what you say? Since the times of my ancestors, floods have only occurred after ants leave their homes. Now the ants are not moving and you come and ask me to leave?' As in most of the Limpopo Valley, many people did not evacuate. About 700 people drowned.

With climate-change risks, traditional knowledge is increasingly not enough because our past experience does not necessarily apply to present and future risks. There is no point in generating advanced climate models without also preparing to communicate this new knowledge in ways that are sensitive to the context and that can be understood and trusted – especially amongst marginalised communities where trust of the local government may be low. For an example of how this can be done, see the case study on the Philippines.

CASE STUDY:
Waiting for the ants is not enough in Mozambique

4.2.5 Facing the challenges of migration

Areas that experience increased in-migration need additional assistance.

The resilience-protection-response model assumes that not all problems can be resolved. Strengthening resilience is important but vulnerable groups will remain, and though protection of the vulnerable may be improved, extreme weather events will nonetheless threaten human life. In a similar vein, though conflict-sensitive adaptation, climate-proofed peacebuilding and policies for social resilience will reduce the global flow of migration, there is still likely to be significant localised migration. This is, inevitably, most likely in areas where policies to build resilience and protect the vulnerable cannot be implemented because of state fragility and violent conflict.

Some governments and communities will instinctively try to block immigration with regulations and physical barriers, which may well exacerbate conflict risk. For other, more constructive and

generous responses to be possible, communities and governments will need support. And they will need it not just if and when migration occurs but in anticipation of it. Long-range preparation will minimise the problems that arise when people feel strangers impinging on their lives.

Developing a much improved analytical basis is essential. The effort will need to be interdisciplinary. Climate and demographic projections combined with economic and conflict analysis will identify sources of migration, while an analysis of migration history and cultural connections will help identify destinations.

In migrants' likely destinations, there will be a need for policy measures that make their arrival less disruptive. The problem breaks down into serial strategic planning for those locations, whether they are rural areas, towns or major cities. The process of planning will need to be transparent and participatory because its aim will not simply be to produce a good plan, but to be part of the process by which immigrants are gently absorbed into the social fabric. Issues of livelihood, employment opportunities, needed skill sets, infrastructure and public service provision, including law and justice, will all need to be in the frame. Public dialogue on the problems, potential solutions and possible benefits will need to be patient and evidence-based. The key is for the immigrants to be and be seen as an asset for local society instead of an unwanted burden.

The specific needs of major cities that are both dealing with migration flows and facing increased climatic threats will need targeted responses to reduce vulnerability. Efficient water and sanitation services are critical to making "harmonious cities".³³ Building on these, other aspects of good national and local governance are also important. This includes good quality disaster-preparedness and response, reasonable housing with physical resilience that is appropriate to identified risks of extreme weather events and other disasters, and an enabling environment for civil society action.

CASE STUDY: Regional cooperation to deal with migration from Bangladesh

In Bangladesh, the disturbance to the natural balance of the delta region has forced many to migrate – either within Bangladesh or to India. The general pattern has been that those leaving non-viable areas have often migrated to areas that are already only just viable. Even though livelihood difficulties and the growing population have caused this type of migration since the 1950s, the climatic threats that have recently emerged have added to the pressure. The country is experiencing summer droughts, worsened flooding when cyclones hit, and salination of the coastal rivers. About half a million people have moved within Bangladesh to the Chittagong Hill Tracts and several million have migrated to India.³⁴

Both the Chittagong Hill tribes in Bangladesh and the north-east Indian region, where the newcomers have been accused of stealing land, have experienced social frictions and violent conflict because of immigration. In reaction, the Indian government is erecting a 2,500-mile physical barrier to stop further immigration. This may insulate India in the short-term (though physical barriers are often an imperfect means of preventing migration), but the better it works, the worse that will be for Bangladesh – and eventually a build-up of problems in Bangladesh will become India's problem too. Regional cooperation makes long-term sense.

4.3 Residual risk

Implementing these policies successfully will not solve everything and protect everyone from the consequences of climate change. It will be necessary to be ready for large-scale humanitarian response as well.

Climate change adaptation and disaster risk reduction both have similar goals in that they aim to reduce vulnerability and increase sustainable development. Disaster risk reduction is the more established discipline and its seniority provides helpful frameworks and tools that could be applied in climate change adaptation. Current practice in disaster risk reduction programming favours a

community-based approach. Much of this methodology is relevant to climate change adaptation, where a common problem is that local knowledge is not allowed to feed properly into the decision-making processes. This is an obvious place to share good practice and promote joined-up policy and response approaches. Given that most donors have in place a disaster risk reduction strategy and funding stream which is not considered when drawing up climate change adaptation policies and funding streams, steps must be taken to promote the convergence of disaster risk reduction and climate change adaptation to avoid re-inventing the wheel for adaptation, duplication, and the diversion of funds and energy from disaster risk reduction to narrowly focused climate change adaptation processes.

The governor of Albay Province in the Luzon island group has mainstreamed climate change adaptation into his economic development strategy. Facing changing pattern of typhoons and future sea-level rises, he initiated the “Albay Declaration on Climate Change Adaptation” in 2007. This sets out the place of climate change in local and national development policies. Albay’s prototype for local climate change adaptation puts disaster risk reduction into all development projects and programmes.³⁵ Advocacy and public information campaigns create an enabling environment for making this happen. Institutional initiatives have generated localised forecasting statistics on sustainable agriculture, forestry, fisheries, energy and eco-cultural tourism in the light of climate change. These provide the evidence basis for further practical initiatives in fields such as water and sanitation, crop selection, fisheries policy, education, clean energy and forest protection.

With that knowledge as the starting point, it would

be a relatively small additional step to consider how conflict within the Philippines (the protracted communist insurgency) and regional economic developments would have an impact on agriculture, forestry and so on. Albay Province has not included conflict issues in its adaptation initiative, but a society that develops the capacity to think about itself and the dilemmas it faces, and then to act to resolve them, can utilise this capacity on a range of different risks. There are numerous ways in which the capacity can be developed – from school education, through awareness-raising for government officials and civil society activists, to university education. The goal is to establish a culture of shared knowledge and shared willingness to act. To do this the state must assist not only in building scientific capabilities to analyse the issues, and not only in building institutions that can act on the basis of that knowledge, but also in bringing people together to share knowledge and build a common purpose.

CASE STUDY: Ensuring resilient responses in the Philippines

The issue of residual risk is at its sharpest in countries that are not only poor and extremely vulnerable to extreme weather events, but which are also badly governed. For example, in May 2008, Cyclone Nargis hit Burma, causing an estimated death toll of over 140,000 and leaving an estimated 2.4 million people homeless. It appeared that the Burmese state was unprepared and unwilling to do very much by way of response. If there is a solution to that problem, it is not to be found when the cyclone has hit nor does it lie in the realms of disaster risk reduction. Like the inability of global or regional concern to prevent the predictable cholera epidemic in Zimbabwe, if there is a solution it is political.

However, it is extremely difficult and widely regarded as undesirable to force an intervention in a country against the state’s wishes, regardless of whether the aim is humanitarian in the strict sense or broader and political, and regardless of whether it involves force. The international system takes sovereignty very seriously. It is possible that intervention can be forced in extreme circumstances. But in extreme circumstances, by definition, the opportunity for developing resilience and protecting the vulnerable has passed.

5



ENSURING THE EFFECTIVENESS OF CLIMATE CHANGE ADAPTATION

5.1. Getting the institutional structures right

What we have set out above is an ambitious policy agenda. To ensure its potential is realised, we have to look not just at the policy objectives, but also at the institutions that will have to carry them out. And the theme of risk, uncertainty and interlinkages is unsettling when we come to think about institutional responses. Institutions are not always so good at dealing with such challenges.

In the last decade, international development actors have learned some hard lessons about the difference between actions that are effective in achieving development objectives and those that fail to be truly supportive of poor and vulnerable communities. Key among these are lessons about how difficult it is to ensure institutions are able to do development effectively in countries with poor governance, state fragility and the effects of violent conflict. It will take more than a few tweaks to existing processes. It requires a wholesale rethinking of institutional structures, the incentives that govern them and the rules by which they operate.

The major focus of the adaptation debate at the UNFCCC remains on how this money will be raised.³⁶ However it is vital that discussions on the governance arrangements and priority area identification surrounding the disbursement of climate funds are not postponed until after the financing questions are answered. This process cannot occur in a linear fashion. Adaptation is already occurring and more will need to occur, and in the absence of any global consensus under the UNFCCC, donors are increasingly going it alone in bilateral agreements with developing states.³⁷

There are inevitable questions about whether and how this level of finance can be absorbed in low-income economies. In conflict-affected and fragile states, governance systems and resource management often favour a small group of elites. The UNFCCC's Adaptation Fund aims to ensure that recipient countries will decide their own priorities on how funding will be spent. Noble in principle, this aim is fraught with practical difficulties in fragile states, where it is impossible to overlook issues of corruption, lack of adequate structures and lack of transparency.

This raises the question of whether existing institutions are fit for purpose, such as the World Bank and the Global Environment Fund (GEF) which have *de facto* assumed a role as climate fund administrators. Despite a 2012 sunset clause on two major World Bank climate funds, the reality is that they are unlikely to disappear.³⁸ These institutions are driven by internal systems, prescriptions and norms which often conflict with sensitivity to how fragility affects operations and how operations affect fragility. A look at these institutions reveals three concerns.

Their guiding principles are inappropriate for the task in hand. Working in fragile states requires different operating principles than normal. Guiding principles for development such as “country ownership” may work in states that have a relatively stable and accountable governance structure but they can be very damaging in fragile states. The World Bank, for example, which is presently managing the Climate Investment Funds, including the multi-donor Pilot Programme for Climate Resilience, is guided by principles of alignment which do not explicitly acknowledge that sometimes the state itself is part of the problem. Efforts to minimise transaction costs mean that the principle of country ownership is implemented simply by putting things in the hands of a small elite group. Country ownership and government ownership are not always the same thing. Nor does getting the buy-in of one or two national ministries such as the Environment Ministry or National Planning Commission equate to national alignment. Failure to acknowledge that

state fragility requires institutions to fit their work to the context will significantly impair the effectiveness of efforts to build resilience in fragile states.³⁹

The second concern is whether these institutions have appropriate internal incentives. The emphasis and incentives at the World Bank and GEF are frequently based around meeting quantitative targets such as amount and speed of money disbursed and number of projects completed, rather than qualitative issues that might put a higher value on adopting conflict-sensitive approaches or supporting broad participation in decision-making processes.⁴⁰

And thirdly there has to be concern about institutional mandates since political and social considerations are sometimes considered beyond the mandate of these organisations. The Bank's Articles for Agreement, for example, have a clause stipulating that 'proceeds of any financing are used ... without regard to political or other non-economic influences or considerations'. There is of course a fundamental difference between avoiding the politicisation of aid and ensuring that development commitments are based on a solid understanding of political economy and social factors. Whilst individuals within the organisations in question may understand this point, the vague policy formation means it is often misinterpreted resulting in superficial and unsustainable outcomes.

Design of the instruments under the new climate change architecture needs to ensure an understanding of the social issues and the political economy of fragile contexts. They must also be free of institutional constraints which impede flexibility and promote qualitative rather than quantitative results. Perhaps even more pressingly, existing institutions such as the World Bank and the UN system – which will undoubtedly play a major role in disbursing climate change funds and implementing climate adaptation projects – urgently need to get their house in order. This requires a move away from inflexible structures grounded in sectoral "silos", counterproductive incentive systems, patchy knowledge bases and inadequate consideration of governance in any meaningful sense.

Below, we consider some areas for institutional reform that apply to the policy objectives. They reflect not so much on what is to be done, but on modes of implementation.

5.2 Enhancing institutional flexibility

The nature of climate, conflict and state fragility and the most promising policy responses place tough demands on the functions of national and international institutions alike. One such function is analysis and monitoring of risk. Related to that is, on the one hand, the rapid dissemination of information and, on the other, adjusting to a changing terrain of risk, perhaps by adjusting existing policies, or maybe by generating new ones. This may well include the need to respond to the proverbial "black swan" – an event that is so different from the norm that it is not simply unexpected but falls right outside the framework of what is believed to be possible.⁴¹ Institutions capable of fulfilling these functions will be forward-looking, thought-led and evidence-based, innovative and resilient.

The first question, amid the pressures of pragmatic political consideration both in national governments and in inter-governmental organisations, is whether it is feasible to establish such institutions. There are two reasons for doubt. The first is that they will be established by decisions taken within institutions that themselves all too often lack the necessary qualities. The second is that these institutions will be dealing with matters that are often politically sensitive. It is not hard to envisage coalitions of the unwilling blocking urgently needed institutional innovation. For both these reasons, a clear-sighted and determined political alliance is almost certainly required to get things moving, whether we are thinking about national or international institutional change.

The second question is how to establish rules, norms, guidelines and incentives so that a capacity for innovation is rewarded, rather than being bottled up, as is often the case in complex, high-profile institutions. One thought is that establishing and running institutions that can meet the challenge of climate, conflict and state fragility will be easier in some national settings than in others and easier than at the international level. The conclusion here may be that where such institutions can be established they should be, with an international mission despite a national foundation.

The emphasis on institutions can sometimes lead policy design astray if it forgets that institutions are made up of people. The rules, guidelines and norms in an institution may all be exemplary, but the people who work within it must be able to rise to those standards. Ensuring that the human capacity is up to the task is as important as getting the functions and structures right. This is a matter of staffing policies that are aligned with the mission and the value placed on flexibility and innovation. It is, at bottom, a question of nurturing the talent needed meet the institution's goals.

5.3 Dealing with uncertainty

Current approaches to adaptation can be seen to take two lines: one focuses on creating response mechanisms to specific impacts, and the other on reducing vulnerability to climate change through building capacities that can help deal with a range of impacts.⁴² Risk, uncertainty and interaction are key aspects of the policy challenge. The challenge that faces policy-makers is to manage rather than overcome the uncertainty. On that basis, it would be a mistake to focus policy responses on specific actions aimed at meeting the challenge of particular events, or even developing specific technical capacities. In the uncertain climate future, what happens if unforeseen events occur while expected ones do not?

In development and peacebuilding in the face of climate change, it is perhaps better to be vaguely right than to risk being precisely wrong. Science does not give an exact forecast of future climate change. It will never be able to. But it is wrong to conclude that no action on adaptation can be taken. Uncertainty is different to ignorance: it is something that confronts all decision-makers, not only in the field of climate change. Companies have to take strategic decisions despite high levels of uncertainty about future markets. Parents make decisions in raising their children without knowing exactly what effects they will have. We are constantly having to make decisions without having enough validated information. To judge uncertainty – its magnitude and origins – requires thorough analysis and scenario-planning. Climate research simply provides the relevant information. It is ultimately the responsibility of the decision-maker to draw on relevant tools.

There are several reasons for uncertainty about climate change information. The key reason is that we can't be sure of future greenhouse gas emissions, and since these hypothesised levels are the groundings for the different "emissions futures" outlined in scenarios by UN scientists, this makes judging the socio-economic effects of climate change rather precarious. However, some areas contain more uncertainty than others. For example, on some variables such as temperature change there is a broad consensus amongst different climate models. Where there is less certainty, it is possible to compare models to get an indication of the expected direction of change. Often, uncertainty is due to lack of information at the hands of policy-makers. Yet there is a considerable amount of accessible information now available for the purpose of informing relevant stakeholders outside the climate community.⁴³ One step is to ensure that the right people know how to access climate change information, interpret the information to feed into their analysis and communicate this to field level where necessary.

In terms of practical responses to uncertainty, where there is just a low level of uncertainty, it will be possible to address tangible impacts such as flood defences to glacial lake outburst flooding. When facing more uncertainty, it is advisable to focus on increasing adaptive capacities through

“no regret” or “low regret” activities (ideally a win-win-win situation for adaptation, mitigation and peace), for example higher efficiency of water usage during the threat of possible drought.

5.4 Enhancing the knowledge base

There are five sides to the knowledge problem. First, the natural science knowledge about climate change is unevenly distributed and used. The UK can access and compare 60 different models of climate change to gain a sense of where the consensus lies; Bangladesh can utilise a single model; Nepal has not properly used one at all.⁴⁴ Second, the social science of climate change is in its infancy and needs to catch up. The appropriate policy response to both problems is a sustained effort both to draw on research capacities in the developed countries to strengthen research capacities in developing countries, and to encourage research cooperation between think tanks and universities in developing countries.

Third, adaptation policy should begin by focusing on planning and implementing measures at as local a level as possible. This is partly to hedge against uncertainty and take the opportunity to pilot new initiatives on a relatively modest scale. It is also because it is at the local level that it will be most possible to understand the societal impact of climate change. This gels with key governance considerations.

Fourth, there is the issue of disseminating information in ways that ordinary people can understand. Too much analysis is expressed in ways that are alienating and disempowering, so that those who are affected by climate change and caught up in the web of social consequences are far from aware of the risks and the challenges. But they often have a considerable knowledge derived from experience that can help design adaptation. There is a need to bring natural science, social science and local knowledge together into a dialogue. This will help equip citizens for their side of the governance contract. And it will steadily strengthen not just local but national and international capacity to find imaginative solutions to common problems.

Lastly, there is the age-old institutional problem of siloed knowledge within sectors. Climate change is still seen as an environmental issue and thus understanding climate impacts is seen as something for climate experts, not for development practitioners, policy-makers in post-conflict reconstruction, conflict prevention and early warning experts or humanitarian actors. An institutional shift is necessary for adequate understanding of climate change impacts to become part of the knowledge base of all actors engaging in countries that will be affected by climate change.

5.5 Sequencing

Discussions about interlinkages between different problems and policy areas routinely raise the question of sequencing – what comes first? These discussions often fall victim to the false assumption of linearity – first one thing, then the next. When thinking about post-conflict peacebuilding, for example, Paddy Ashdown argues that the priority task on day one of a peace operation is to dominate the security space.⁴⁵ But along with that he argues it is also necessary to establish the rule of law and get the economy kick-started. It seems important to take decisions about sequencing, but the truth is that states and peace are not built sequentially.

Response to climate change offers the same dilemmas. Establishing the rule of law will not be easy if the people feel that the authorities are failing to protect them from flooding. Nepal is in the front line of climate change because of glacial melting and changes in the timing of the monsoon, both building on climate variability that is already extreme. With severe flooding in 2007 and 2008, it seems Nepal should begin by improving its response and recovery capacity. Yet that would have only short-term effects unless, at the same time, efforts were in hand to strengthen

the country's basic resilience and protect the vulnerable. To do that, however, it is necessary to find ways of handling the legacy of the recent civil war. Often bitter party rivalries that dominate all public issues and relations between the parties can make or break any and all policy initiatives and actions by the state.

There is not much of a record of effective sequencing on which to draw. A review of early recovery arrangements found little that could be thought of as best practice – few efforts in any aspect of recovery from war that managed early on to lay foundations for long-term sustainable peace.⁴⁶ The review implies that sequencing is established more on the basis of available resources than on the basis of need.

A viable approach to sequencing has to acknowledge the importance of meeting immediate needs, fixing immediate problems and preventing or preparing for the next disaster. At the same time it has to imagine a desirable end-state and identify the necessary conditions for making progress towards it. In different circumstances the combination of priorities will be different. The lessons of experience suggest there will not be a single key initial task but, rather, several equally important early tasks.

5.6 Enhancing the governance contract

Responsive and responsible states are not created just by increasing capacity in government departments but by a contract between citizens and state. This swings on the balance of power between the elite and the rest of society. Development of a rich network of citizens' organisations contributes to state-building and to the practice of good governance because it encourages transparency and accountability, and accordingly efficiency and responsiveness. But its influence is resisted by the social and political elite who, if they are strong and self-confident enough, may reject civil society influence altogether and close down the space it needs to work in.

Implementation of the policy objectives set out above must begin with local needs and capabilities, with provincial and national governments meeting needs for which local capabilities are not sufficient, often coordinated with other regional governments, and with international funding and other support as necessary. This effort will have to be designed and carried out despite the obstacles mounted by irresponsible members of the state apparatus and grasping elites. Removing these obstacles will partly be about providing incentives for elite groups and governing authorities to support far-sighted approaches to adaptation, peace and good governance.

Such an approach will therefore stress the engagement of citizens in understanding, deciding and implementing the measures that need to be undertaken to face the multiple challenges of climate change. In order to make this possible, policy should be implemented at as local a level as possible, so it is as visible and accessible as possible and the institutions implementing it are as transparent and accountable as possible to ordinary citizens.

This is not a kind of good governance that is specific to climate change. It draws on general thinking about governance frameworks in development, which sees responsive state-building as offering a virtuous circle of basic functional effectiveness, transparency, social participation and inclusivity.⁴⁷ In the international development community, this argument has been fairly widely accepted in principle, theory and policy – it is the practice that lags.

The reasons why the practice lags lie in the heart of the power relations in developing societies. In conflict-affected and fragile contexts, both governance and the economy tend to favour a relatively small elite group. This is a clientelist system of governance, in which the goods and services provided by the state are not universally available but selectively, according to how politicians see their advantage.⁴⁸ These are typical features of "limited access social orders".⁴⁹ For the shift and development towards more open access, or, in different terminology, for responsive

state-building to begin,⁵⁰ a significant fraction of the social, economic and political elite must see adequate incentives.

Climate change issues may offer such an incentive, especially if international discourse and policy shifts across the board and the climate consensus includes major governments that have hitherto stayed outside it. The stakes involved are enormous and far-sighted elites will adjust because of that. Further, as many observers have noted, issues of the natural environment can be effective platforms for dialogue and identifying shared interests.⁵¹ However, this is only the case if the right incentives are in place. It would not be reasonable to expect a quick or comprehensive transformation. But in some states, aspects of better governance will emerge alongside and in competition with other, unreformed governance practices. In some countries, civil society groups will be able to engage with parts of the state and the elite. And it is important to ensure that, in pursuing the five key policy objectives, these governance considerations will always be at the forefront.

6



CONCLUSION

The consequences of climate change, the incidence of violent conflict and the corrosive effects of state fragility are all major problems. To take them on together is to take aim at a very difficult target. But it is necessary because these problems are not isolated from each other. At the same time, the fact that they are linked problems helps identify linked solutions that benefit from synergies and that have an impact on several targets at once. Starting with the irreducible uncertainties of how the interlinkages can be expected to operate, this paper has set out a policy goal, backed up by five policy objectives that together constitute a coherent agenda:

1. Adaptation to climate change needs to be conflict-sensitive. In fragile and conflict-affected contexts, all interventions must respond to the needs of the people, involve them in consultation, take account of power distribution and social order, and avoid pitting groups against each other.
2. Peacebuilding needs to be climate-proof. For example, post-conflict reconstruction and the reintegration of ex-combatants into their villages must take account of the long-term viability of the land and natural resources available for lives and jobs.
3. Shifts towards a low-carbon economy must be supportive of development and peace. For example, there must be no repeat of the rapid move to biofuels, which not only reduced food availability, but also threatened to drive millions of people off the land.
4. Steps must be taken to strengthen poor countries' social capacity to understand and manage climate and conflict risks.
5. Greater efforts are needed to plan for and cope peacefully with climate-related migration.

These objectives need modes of implementation that are directly informed by the analysis, drawing on the best of development practice. By briefly illustrating how this would look in practice, this paper has also attempted to communicate a sense that these tasks are feasible – demanding, certainly, but distinctly achievable. In essence, they require two fundamental shifts: in the way institutions are organised, and in the way interlinkages are addressed.

First, institutions responsible for climate change adaptation – be they under the UNFCCC architecture, international financial institutions, development agencies or peacebuilding organisations – need to ensure that their internal systems and structures promote adaptation even where there is state fragility or conflict risk. In these complex and delicate situations, adaptation must do no harm, and ideally help the goal of peace along its way. For this to be possible, institutions must restructure in such a way as to maximise the participation of ordinary people and build accountable and transparent public institutions.

Second, strategies must adapt to meet the combined challenge of climate change, conflict risk and state fragility. It is wrong to imply that henceforth there will be old-style development with adaptation on top. It may be that there will be a continuum from development activities that are not affected by climate change to development activities whose entire purpose is adaptation,⁵² but overall policy and strategy will present a new form of development. That means development assistance will need to adapt too.

A crucial step towards these objectives and the appropriate modes of implementation is a large-scale systematic study of adaptation costs. Current estimates vary widely and are charged of being so short of the mark that they will not very helpful to planners. They ignore costs of climate change impacts against which adaptation – as presently conceived – cannot protect people, such as those that stem from elite resource capture and discriminatory regulations on land rights. A comprehensive and holistic assessment and costing of adaptation is a priority if we are to have any hope that climate change adaptation can reduce the risk of conflict and fragility.

It remains to be calculated whether the new form of development is (or can be permitted to be) more expensive than the outlay to which donors are already committed. But it seems likely that much and probably most expenditure on adaptation will simply be indistinguishable from expenditure on development because the activities will be fused. It is in the context of this challenging agenda and these practical considerations that the next steps on an uncertain road need to be designed.

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