

Learning to Tackle Climate Change

How can continuous learning and reflection help tackle climate change in the context of wider development challenges?

This interactive PDF aims to support ongoing learning by those inside and outside DFID to develop their own learning journey - no matter what their country, context or level of personal expertise. It reflects the combined knowledge of DFID staff and external experts generated over two years on a shared learning journey through the Learning Hub.

Beginning Your Learning Journey:

The different sections of the PDF support the reader to reflect on different aspects of climate change and development in relation to their own work. The sections can be read individually and in any order depending on the reader's learning needs.

Clickable links between sections are embedded in the PDF, as well as links to the Learning Hub's themed outputs from the learning cycles in the form of [Bridging Papers](#), [Learning Notes](#), [Case Study Notes](#), [Briefing Notes](#) and [Research Papers](#).

ORGANISATION

This section relates individual climate change learning to the existing organisational structure and learning processes.

ORGANISATION

FOCUS

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CONTEXT

GOALS

FOCUS

This section maps out the types of analysis, relationships and interventions needed for moving towards a development agenda that is both low carbon and climate resilient.

CONTEXT

This section shows why understanding the specific institutional and political context is critical for determining opportunities and constraints for delivering on climate change.

GOALS

This section details the implications of addressing climate change and delivering current and future progress in tackling poverty.

CHANGE

This section shares some Learning Hub answers to the question 'what makes addressing climate change different from business-as-usual in development?'

Outputs from the Learning Hub journey are linked throughout the text and include:

Hub event outcomes, bridging expert and practitioner knowledge in four learning cycles: (1) Approaches to Planning; (2) Tackling Poverty; (3); Low Carbon Energy; and (4) Difficult Environments

Sharing lessons from recent examples of policy and practice

Checklists of actions related to the four learning cycles

Deeper insights on a topic

Practical and theoretical insights into core challenges

ORGANISATION: What is my organisational context?

The nature of the climate change problem requires that DFID and other development organisations are able to foster continuous learning. The starting point for climate change learning is not the technical detail, but how it relates to the organisation itself.

1. Lessons for learning on climate change in DFID

The Learning Hub experience highlighted a number of lessons for organisational learning around climate change.

1. 'It is a journey not a destination' – Integrating climate change into development is an ongoing process.
2. 'I've got a particular learning context' – Learning and communications have to engage different audiences in different contexts, and recognise that people begin the learning journey from different starting points (see example in the 'differentiating audiences' table).
3. 'Make it speak action to me' – Communications need to make climate change relevant for personal behavioural change and outline strategies for action not just analysis.
4. 'It's not really my issue' – Climate change communication has to challenge a person's reluctance to engage, needs to embrace cultural change, encourage strong leadership and develop a coherent vision.

Differentiating audiences and actions according to growth, emissions and governance contexts.

2. How is DFID addressing climate change?

The organisational response to climate change combines aspects of leadership, strategy, policy and programming, housekeeping and learning. Experience from the Hub suggests that **key questions for staff to ask** include:

- ❖ Who leads on climate change and who can I work with to take climate change forward?
- ❖ Does climate change feature in my department's operational plan? Should it feature?
- ❖ How should this be reflected in my work objectives?
- ❖ What tools and learning resources are available to assist me?
- ❖ What strategic guidance can I take from my Strategic Programme Review (SPR)?

Leadership

'If we are serious about development we need to be serious about climate change'
Mark Lowcock, Permanent Secretary, DFID, 2011.

The speeches of the International Development Secretary and the development of a network of Senior Climate Change Champions in DFID signal intent to lead from the top of the organisation. Climate and Environment Advisers across the organisation provide technical support to policies, development of all business cases and programme design and implementation. In addition, DFID has teams to provide policy and knowledge support on climate and environment, and a research team focused on building longer-term evidence.

The key challenge is to **embed climate change issues within the context of the work of all staff**, not just those working on specific climate change programmes. The Learning Hub experience suggests this means **focusing on co-benefits and relating climate to other development priorities** such as growth, employment, health, infrastructure resilience, food security, social protection or livelihoods. Coherent shared narratives and vision are required to enable leadership to drive change through the organisation.

Climate Champions

The role of the Climate Champions is to demonstrate authentic leadership in this area of DFID's work through:

- leading by example
- informing, creating strategy
- building skills and knowledge
- aligning culture and structure to desired change

Strategy, Policies and Programmes

Climate change issues are driven strategically through pillar six of the [2011–2015 DFID Business Plan](#), which prioritises the need to 'Drive urgent action to tackle climate change, and support adaptation and low carbon growth in developing countries'. DFID's spending on programmes that explicitly address climate change objectives has increased dramatically as part of UK commitments including £1.5 billion to [Fast Start Finance](#) for 2010–12 pledged under the UN Framework Convention on Climate Change (UNFCCC), and the development of the cross-UK government International Climate Fund.

Across the organisation, DFID's approach to becoming Climate Smart draws together strands of leadership, greening of operations by reducing their environmental footprint, awareness and skills, integrating climate risks and opportunities into programming, and design of future investments (see Climate Smart Pillars diagram).

Pillars of Climate Smart programme

It includes 'proofing' or altering programmes to integrate climate change risks and opportunities based on the Climate and Environment assessment process - all DFID interventions require a Climate and Environment categorisation and [impact assessment](#) as part of [Business Case procedures](#) as a way of identifying potential risks and opportunities. Crucially, it also asks **what needs to be done differently for future investment** to meet climate change challenges.

[Strategic Programme Reviews](#) (SPRs) are being rolled out across country offices and to all business units in DFID to integrate the Climate Smart approach and build resilience as a core element of DFID's approach. These provide a common **framework for analysis, action and learning, whilst recognising the different starting points** and ambitions of different parts of the organisation.

Key lessons from pilots of the Strategic Programme Reviews (SPR) include:

- The Office Head must lead the process
- Enable time and space for exploration and conversations
- Set targets and monitor and publish and be held accountable
- Include Climate Smart as a standing issue to report on at 'in-days' or weekly leadership meetings

Learning

The Learning Hub drew on a range of formal and informal learning mechanisms. In DFID, formal mechanisms include:

- regional meetings and annual conferences which bring advisory staff from country programmes together with headquarters colleagues for several days
- standalone training events
- lunchtime seminars
- emailed policy updates and messages, often containing links to commissioned research activities and outputs

While much learning occurs more informally, including:

- individual learning (such as membership of e-groups, or reading papers sourced through a Google search, meetings with external experts or partners)
- informal/semi-formal networks (e.g. Asia/Africa/Global/Professional networks through which articles of interest are circulated, or responses to issues are discussed)
- ad hoc discussions with colleagues (e.g. chats at the tea-making point)
- learning-by-doing is probably the most powerful incentive to learn in DFID (e.g. being tasked to facilitate an SPR, comment on a business plan or present a seminar). These moments of potential exposure provide strong incentives for learning

The Learning Hub experience supports **the need for linking formal and informal learning mechanisms**, including facilitated problem-solving and 'safe' spaces where views can be exchanged frankly and where learning from failure can be constructive. Internal shared websites can bridge and link these mechanisms, but Learning Hub experiences suggest that these need to be stimulated by face-to-face shared dialogue, exchange of experiences and creative problem-solving exercises.



Carl Jackson

<http://www.youtube.com/watch?v=rxMEibhDf9k>

3. There is much to learn from other experiences of integrating cross-cutting topics

Learning Hub discussions suggest that in tackling climate change, DFID has much to learn from other experiences. Firstly, it can draw on experience of mainstreaming other cross-cutting issues such as gender and HIV/AIDS ([Elsey et al., 2005](#)), which suggest the need to:

- create and maintain momentum around mainstreaming through increasing visibility and delivering excellent communications
- develop a strong evidence base around the links between climate change and development and use this evidence consistently to embed climate change issues in development actions
- establish focal points in key departments and sectors with the responsibility, skills and time allocated for acting as catalysts or facilitators of responses by all staff
- ongoing training and support to carry out these roles effectively

The latter points reflect ongoing efforts in DFID to build and nurture climate change expertise in individuals across the organisation, and then to use that network as a system for people to promote change and encourage learning throughout DFID.

The Learning Hub experience also highlighted the **need to understand how to influence people's behaviour** in order to integrate climate change across other areas. by There is a need to prepare a range of strategies appropriate for people with different views on climate change; this process can draw on previous work such as that for building sustainable lifestyles (see the 'Influencing behaviour' diagram). Such strategies may include:

- **Encouraging:** Providing incentives and disincentives, such as including climate change response in staff performance appraisals
- **Enabling:** Providing the systems and skills to make it easier to act, such as office-wide engagement in the SPRs
- **Exemplifying:** Demonstrate shared responsibility and that others are acting, such as through visible actions of the Climate Champions
- **Engaging:** Get people involved and work with others to co-produce integration strategies, for example through collaborative work between DFID's country offices and Policy Division

Influencing behaviour requires different strategies for different groups

Adapted from: [DEFRA Centre of Expertise on Influencing Behaviour](#)

Finally, DFID can draw on private sector organisational responses to climate change, which highlight the importance of:

- ➔ strong leadership from the top of the organisation
- ➔ internal green targets and monitoring on emissions, waste and water
- ➔ simplifying the challenge by providing clear focus and targets linked to performance incentives

This can be further supported by:

- ➔ integrating across the business through staff training
- ➔ measuring and rewarding performance
- ➔ making use of champions, and public recognition

After these processes of embedding change, **the use of innovation funds can be deployed to promote further change** as the organisation evolves via a process of continuous improvement to a higher level of sustainability.

4. Key elements of an approach to integrating climate change

Problem-solving exercises through the Learning Hub suggest an approach to organisational change for DFID that includes:

- **Narratives:** Develop a vision with short, clear theories of change for aspects of climate change and development, along with SMART indicators
- **Leadership:** From key individuals across DFID but also ensuring that top management are the ones to champion climate change with Office and Department Heads, who then themselves make the case to Directors supporting them to make brave choices
- **Resources:** Use the theory of change and indicators to make the case for support to climate change activities in a country/region, including dedicated staffing as well as programme resources
- **Processes:** Engage opportunistically with changes to DFID business processes, aligning new processes with what needs to be done to support climate change (for example in revisions to the Business Case procedure, the Project Cycle Management guidance or structure of Project Documents)

Where next?

CHANGE:

How is climate change a game changer for development?

A common question from the Learning Hub experience was:

- ❖ what makes addressing climate change different from business-as-usual in development?

Drawing on the Learning Hub experience this section presents some answers to the question.

1. We need to do 'good development' and develop new approaches

Climate change and development responses are intrinsically linked:


- the 2006 Stern Review describes climate change adaptation as 'an extension of good development practice', such as water management or disaster preparedness
- actions that create lower carbon emissions are often consistent with other development and environment goals, such as renewable energy providing energy access, or fuel-efficient stoves that reduce indoor air pollution and reduce pressure for firewood and charcoal

Integrating climate change and development responses will promote a more efficient approach to achieving overlapping objectives. It can help avoid climate change actions that could inadvertently threaten poverty reduction objectives, such as flood protection that restricts agricultural drainage, or biofuels plantation that affects local food security. As a result, there has been a strong drive to mainstream climate change issues into development policy and practice rather than treat climate change in isolation.

Learning Hub discussions asked **whether adjusting existing programmes through a mainstreaming approach will be a sufficient response** or whether a transformational response is needed. This hinges on whether climate change impacts will outstrip the capacity of current approaches, and whether current trends in greenhouse gas emissions reduction will prevent dangerous climate change. This poses difficult questions, including:

- ❖ Should we keep investing in low-lying delta areas prone to sea-level rises?
- ❖ Can humanitarian efforts continue to support more frequent food shortages due to drought?

- ◆ ? Is the current fossil fuel-based growth model compatible with avoiding dangerous climate change?
- ◆ ? Are existing regulatory approaches sufficient to protect forest stocks?
- ◆ ? Should we invest in agriculture that maximises economic and livelihood benefits without considering adaptation and mitigation benefits and impact on forests?



Jane Clark

<http://www.youtube.com/watch?v=sWuakY9g0pE>

Incremental change may come up against institutional barriers that can only be overcome through more radical and transformational change – due for example to locking into high carbon pathways through dirty energy investments, or the use of disaster relief as a political tool that prevents investment in prevention. In practice, it is likely that a combination of scaling-up efforts and making relatively **small changes to existing approaches will be required, but alongside innovative experimental initiatives.**

2. A learning approach is therefore crucial

One of the key conclusions from the Learning Hub was that **tackling climate change requires greater attention to reflection and learning.**

This is because:

- we have limited experience with the required responses (so less certainty of achieving results)
- there are competing visions of the problem and its solution (each telling plausible but conflicting tales of climate change)
- climate change introduces new sources of uncertainty due to future emissions scenarios, climate and impact models and the existing uncertainty of the changing development landscape on which impacts play out
- the cross-sectoral nature of climate change adds an additional layer of complexity (climate change cuts across sectors and scales)

- some impacts may outstrip coping capacities (either limits to human capacities to cope with repeated shocks, or biophysical limits such as loss of irrigation from retreating glaciers)
- it challenges the economic growth-based model (a model which has generated significant greenhouse gas emissions and depends on an ultimately finite and scarce resource)
- it requires us to reconcile potentially conflicting objectives (to achieve poverty reduction that is also consistent with adaptation and a low carbon economy)

Working on climate change therefore requires a learning approach – it is a complex issue and experience is evolving rapidly. This makes it a challenging area for development approaches that focus on achieving predefined impacts and value for money. Emphasising **reflection and learning can help challenge ways of working, ways of viewing problems, and points of view.**

The Learning Hub experience supports the need for linking formal and informal learning mechanisms, including facilitated problem-solving and ‘safe’ spaces where views can be exchanged frankly. Internal shared websites can bridge and link these mechanisms, but Learning Hub experiences suggest that these need to be stimulated by face-to-face shared problem-solving exercises.

The need for innovation and testing of new approaches in climate change requires learning to continuously build on experience. For an organisation such as DFID, this means going beyond ‘single loop learning’ that simply focuses on problem-solving. This may be based on acquiring new skills and developing capacities to improve performance; for example through learning about how to use Marginal Abatement Cost Curves or Political Economy, as tools for analysis of climate change issues.

Instead, the Learning Hub process was based on enhancing ‘double loop’ learning that enabled participants to question the underlying assumptions in which their skills are employed (see the ‘Learning’ diagram). For example, participants challenged the assumptions that planned adaptation interventions are the best delivery mechanism and stressed the need for greater consideration of the role of informal and autonomous adaptation processes.

From single to double loop learning

3. Climate change adds even greater uncertainty to decision-making and is overlaid on existing development challenges

As a predictive science of a complex system, models of future climate change impacts generate a cascade of increasing uncertainty as they move towards information relevant to decision-making (see the 'Cascade' diagram).

This uncertainty is **in addition to the uncertainty of the future development landscape onto which these impacts will be overlaid**. These include urbanisation, migration, agrarian change, population dynamics, and the economic impacts of mitigation or adaptation actions that are taken.

Crucially, climate change impacts and responses are overlaid onto existing development processes and challenges. As a consequence, the links between climate change and, for example, conflict or migration are not straightforward or readily predictable.

The high levels of uncertainty arising from future climate change make the quantification of risk difficult. One response has been to **design plans and programmes that are robust across a range of future scenarios**. Such an approach will favour designs that are effective across a wider range of future conditions – for example, integrated catchment management approaches to flood and drought management. Or it may mean a more diversified portfolio of interventions. Exploring the implications of scenarios for specific regions (a country, an agricultural region, a city) can help to identify critical challenges or the potential surprises a region may face as the climate changes.

Decision-making will therefore need to go beyond standard economic efficiency and political feasibility to take on board flexibility and robustness. This will tend to favour measures that have a low opportunity cost, are reversible, flexible, and deliver multiple co-benefits as a starting point. Avoiding inflexible decisions is particularly crucial to ensure that risks are not locked into future development paths.

The cascade of uncertainty in climate models

Climate and Migration

The UK Government's Foresight report on [Global Environment Change and Migration](#) highlighted that environmental change is as likely to make migration less probable as it is to make it more probable due to a reduction in the capital required to enable a move. Consequently, in the decades ahead, millions of people will be unable to move away from locations in which they are extremely vulnerable to environmental change.

4. Climate change is changing the development landscape of finance, institutions and actors

Advocates of 'climate justice' argue that climate change alters the basis for development cooperation. Developing countries are increasingly demanding significantly scaled-up climate finance and a right to determine how it is spent. DFID increasingly needs to work with other UK government departments to manage the relationships between existing aid flows and finance through UNFCCC mechanisms, including the Green Climate Fund.

A key challenge will be to integrate climate change actions within other development activities whilst accounting for what is additional 'climate' finance.

The scale of finance required outstrips the likely contribution from public funds. There is an expectation that the private sector will provide a significant proportion of climate finance, alongside other financing measures such as the proposed international aviation tax.

The challenge for development agencies will be how to leverage private sector finance, such as through the Climate Public-Private Partnership (CP3), while maintaining attention to governance and equity issues that ensure delivery to poor people and avoid potential over-subsidy and the creation of perverse incentives.

The emergence of **climate change institutions will alter the landscape of development institutions and actors**. These include international bodies, such as:

- [Intergovernmental Panel on Climate Change](#) (IPCC) – which undertakes scientific assessments
- [UNFCCC](#) – the international forum and the legal framework for global agreements on climate change
- transnational bodies – for example the [World Mayors Council on Climate Change](#)

And national bodies, such as:

- cross-government climate change committees for coordination and financial flows
- national bodies for projects such as the [Adaptation Fund](#) or [Clean Development Mechanism](#)
- NGO coordination groups campaigning for climate justice, e.g. www.350.org or www.tcktcktck.org
- private sector networks such as the [World Business Council on Sustainable Development](#) (WBCSD) and the [International Emissions Trading Association](#) (IETA)
- businesses, including transnational corporations

This results in new configurations of actors and their interrelationships with development institutions. Internationally, there may be positioning between development institutions to take advantage and leadership of the climate change and development agenda, for example between the United Nations and Bretton Woods institutions. **There may be a need for DFID to develop new partnerships in developing countries, for example with private sector actors in renewable energy or insurance companies.**

These changing financial flows, sets of actors, and incentive structures are likely to alter the conditions for donors seeking to tackle climate change in developing countries. Using a political economy approach is therefore crucial when designing and implementing climate change and development initiatives.

- Climate change and development issues are necessarily cross-sectoral; they require involvement of a wide range of actors and interests, negotiating actions and governance processes across scales
- Despite this, climate change responses are frequently driven by technological and managerial solutions that treat the policy process as linear and apolitical

- Climate change has been mainly seen as a global issue, with insufficient attention paid to political interests or governance arrangements at national or sub-national levels
- There are significant differences in ideological views on how to tackle climate change, for example between those supporting market-led versus state-led responses in REDD+
- The growth of climate change initiatives and finance alters incentive structures for different actors and may lead to attempts to capture benefits for particular groups at the expense of others.

Where next?

GOALS:

How are my goals affected by climate change?

DFID has long been committed to the overall vision of eliminating poverty, and the 2015 objective of meeting the Millennium Development Goals. Climate change has implications for current and future progress in tackling poverty across a range of existing routes to higher incomes and better wellbeing for poor people. These include urbanisation, migration, sustainable livelihoods, food security, agriculture, health, social protection, disaster resilience and wider economic growth. To ensure that progress in reducing poverty continues, DFID therefore has to contribute to addressing both the effects and the causes of climate change. In the course of the Learning Hub, several strategic messages emerged about how climate change affects DFID's goals.



Threading together adaptation
and development

<http://www.youtube.com/watch?v=1dRI0VTY0DU>

1. Much of what we already know about tackling poverty is still relevant in the context of a changing climate

One key reason why existing experience and knowledge are highly relevant is that, **while poverty and vulnerability to climate change are not identical, they do share the same root cause – the lack of ability to withstand multiple shocks and stresses. At the same time, climate change itself is adding to and altering the shocks and stresses** that poor people experience. In rural areas, this is partly because of changes in seasonality, with impacts on livelihoods, food security, illness, and access to markets.

The resilience of individuals, households or communities to both poverty and climate shocks depends not just on income, economic assets such as land, or access to labour and credit. It is also the result of a wider range of entitlements and capabilities, including social networks, health and education, infrastructure provision and access to natural resources, all of which are affected by the quality of governance, the possibilities for empowerment and voice, and the underlying political economy.

Thus one theme emphasised in the Learning Hub was that a **multidimensional understanding of poverty and wellbeing is especially important for understanding vulnerability to climate change**, especially where governments are focused mainly on overall economic growth.

In this context, it is crucial for development organisations such as DIFD to keep poor people at the centre when thinking about climate change programming. The ‘locating poverty’ diagram emerged from the Learning Hub to capture this idea (initiated by Su-Lin Garbett Shiels).

Locating poverty at the heart of the climate change response

It should prompt a set of questions for any programme:

- ❖ What institutions immediately surround poor people, including those governing inequalities between men, women and children?
- ❖ How can we support poor peoples’ own efforts at poverty reduction and adaptation to climate change?
- ❖ What are the sectoral contexts and points of intervention?
- ❖ What are the wider political, governance and policy contexts, and how might these be improved?
- ❖ How is climate change influencing each of these through environmental stresses and increased environmental uncertainty?

A key implication of this approach, identified in the Learning Hub but also recognised in the wider climate and development community, is that **a crucial part of responding to climate change is building the capacity to adapt**. The key building blocks of that capacity – such as inclusive economic growth, social protection, health, education, infrastructure and strong institutions – are the same as those required for equitable development.

Su Lin Garbett-Shiels

http://www.youtube.com/watch?v=D66AOA_UvPc

There are similar 'low regrets' opportunities in low carbon development, with **many interventions having multiple poverty reduction benefits that can also reduce carbon emissions against business-as-usual growth**. One example is managing forest resources sustainably, in ways that ensure local communities retain access to such resources.

New energy technologies – including providing improved cook stoves, solar PV lighting, solar irrigation pumps, and energy from agricultural waste – offer not only a lower carbon development path but also potential co-benefits for health, education and livelihoods, including benefits specifically for women and girls.

A key insight from the Hub is that the interventions that offer the largest carbon emissions reduction (such as improving energy efficiency in the industrial sector, or power sector reform), are those where the poverty reduction benefits will be indirect (through increased employment or greater pro-poor spending because of efficiency savings). **Achieving low carbon and poverty-reducing development is therefore highly dependent on complementary policies and specific project design.** Again, starting from the point of view of the poor should help to capture such policies and design opportunities.

Finally, while 'good' development builds adaptive capacity and can be low carbon, this does not mean it is actually found in all developing countries. Although there has been considerable progress in some countries in the last few decades, deep poverty remains widespread, not only in low-income countries but also in some middle-income countries. Particularly in sub-Saharan Africa and parts of South Asia, the effectiveness of many institutions also remains low. In these contexts, the root causes of poverty remain unaddressed, adaptive capacity is weak and the prospects for low carbon development are not good. **Priorities for action by DFID will depend on context.** For example, in fragile states, the initial key goal for climate resilient development will often be to build a peaceful state.

2. But some of the challenges of climate change are new, and do require new responses and skills

Even where there is 'good' development that also builds adaptive capacity and the potential for low carbon growth, **climate change will demand specific, new additional programmes and policy engagement**. This is because of the 'change' in climate change.

In many cases this is about dealing with potential impacts that are likely to lie in the future, such as significant sea-level rises. In other cases, it is about change that is happening now, such as increasing unpredictability in growing seasons. New approaches identified in the Learning Hub included:

- Existing aid programmes need to be **climate-proofed** (i.e. screened for climate risks and opportunities)
- Climate change also creates an **additional source of uncertainty in development planning**, which makes conventional cost-benefit analysis problematic and often requires decision-making through scenarios instead
- Delivering **adaptation**, i.e. specific investments or changes in practice that respond to current or future climate extremes and trends (such as introducing drought-resistant crops or installing adequate storm drains)
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- The **low carbon** part of low carbon development is bringing a new focus on energy and how to leverage private finance, as well as specific policy areas such as carbon pricing and low carbon innovation
- Communities need **access to information** to help them make informed decisions about their current and future strategies

As noted above, there are many synergies, or ‘win-wins’ to be found that meet both poverty reduction and emissions reductions goals. However, in some circumstances **there will also be trade-offs between goals that DFID will have to negotiate, especially in the short term**. For example, under existing policies, with no carbon pricing or technology policy support in most countries, renewable energy sources can be a more expensive option than conventional fossil fuels for powering grid electricity and extending energy access.

Nevertheless, the scope for such actions is often larger than conventionally thought. This is because the long-lived nature of investments, and inertia and learning-by-doing effects means that even more expensive emissions abatement measures may sometimes be needed to get an economy on a low carbon development path that contributes to mitigation and poverty reduction ([Vogt-Schilb and Hallegatte, 2011](#)). The view taken in such cases will also depend on the discount rate used to balance current and future welfare.

In other cases, for example growing biofuels or investment in large-scale hydroelectric schemes, the trade-offs are not across time but between groups, as there may be direct negative impacts on some poor people, through displacement from land for growing biofuels or for hydroelectric projects.

Equally, with limited resources there can be trade-offs between reducing poverty and reducing vulnerability to climate-related stresses and shocks. This is because while the two are often linked, they are not identical; some poor people are less vulnerable to climate change impacts than others who are relatively better off.

These latter types of trade-off are not specific to climate change, since they can arise in development processes more widely. The experience from the Learning Hub is that **there is no easy way of dealing with these trade-offs, but that it is essential to be aware of them** when making decisions.

3. A key challenge for climate change programming is getting the balance right

One of the most important discussions in the Learning Hub was about getting the balance right between investing in broader capacity and investing in specific measures for additional adaptation or low carbon opportunities.

The Learning Hub picked up on two models that are useful for guiding action on adaptation. One is the 'adaptation pyramid' (developed by Kate Binns, see diagram). This helps show the different targets of interventions, from general development, to a focus on all types of vulnerability, to a focus on specific climate vulnerabilities, to a focus on adapting to climate change (as opposed to short-term current variability), with examples of each. It also shows that most activities in building the long-term capacity to adapt to climate change will be at the lower levels of the pyramid in areas such as health, education and governance.

The Adaptation Pyramid

At the Hub event in Addis Ababa, the 'balance of effort' model for adaptation (proposed by Praveen Wignarajah, see diagram), makes a similar point. This model illustrates how the balance of climate change investment changes across time and different development circumstances. The model hypothesises that as overall levels of development and income rise, the share of investment directed at strengthening underlying resilience should fall, with a greater share being directed at specifically addressing the anticipated impacts of climate change.

The 'Balance of Effort' Model

4. In the long run (and in some contexts sooner) incremental change will not be enough, and transformation will be required

A major concern amongst Learning Hub participants was to not lose sight of a long-term need for transformation in response to climate change, amongst day-to-day pressures to deliver results in the short term.

The idea of 'resilience' suggests an ability both to manage risk ahead of a shock and to bounce back afterwards. Many conventional development interventions, including support to livelihoods and providing health services, are about helping poor people to build their own resilience and escape poverty within a given context. These interventions will also often help to build the capacity to adapt to climate change in an incremental way.

However, in some contexts (examples might include coastal zones prone to sea-level rises in Bangladesh or agriculture in increasingly drought-stricken regions), **adaptation will need to involve the transformation of economies and societies in the longer term.** This is because the greater frequency and severity of extreme events, trends in temperature and shifts in seasonality all mean that an incremental approach may become increasingly no longer viable; people may not be able to 'bounce back', let alone escape poverty, even with assistance.

Transformation suggests large-scale, structural changes to the context, including land use, livelihood possibilities and migration. Adaptation examples might be a major move away from farming to landscape tourism in a particular area or the diversification of a whole economy to industry. The need for transformation implies that, at some point, **there needs to be a switch in focus** from narrower, more technical solutions (such as building higher flood defences or providing drought-resistant seeds) to broader institutional approaches (such as facilitating migration and a wider range of urban livelihoods).

The need to think in terms of transformation also applies to low carbon development. A central challenge is making the case for radical change – that is, getting political leaders interested in the first place. But new possibilities that come with low carbon development can stimulate other kinds of transformation. One example from the Jakarta Hub workshop was the potential for the democratisation of energy through low carbon decentralised energy technologies, similar to the way that mobile phones transformed communication by removing the centralised control of landlines.

Transformation will also require innovation. There is a strong case for increasing support to low carbon innovation, especially in technologies of particular use in poor countries and in adapting existing technologies to individual country contexts. Nevertheless, transformation can appear risky, and donors and development partners alike are sometimes risk-averse, tending to focus on building up resilience and incremental moves towards low carbon growth. However, over time, such an approach can become more risky if it invests in increasingly vulnerable sectors or areas, or locks people or nations into high carbon development pathways. The view in the Learning Hub was that the goal should be to keep both possibilities in view, and constantly review the situation on the basis of updated information.

Where next?

CONTEXT:

What is my delivery context?

One common theme raised in all the Hub events was that understanding the institutional and political context is essential for successful planning, programming and policy engagement on climate change. The context, whether at regional, national or local level, determines the opportunities and constraints for delivering on climate change. Understanding context is crucial for making realistic and effective decisions. Three key questions to ask are:

- ❖ Who are the key actors on climate finance in my context?
- ❖ What is the political economy of climate policy and programming in my context?
- ❖ How to do climate programming in a fragile state context?

1. Key elements of an approach to integrating climate change

The institutional context in a country government is particularly important for thinking about how to deploy climate finance including UK International Climate Fund (ICF) resources. Public finance for adaptation and low carbon development may eventually be deployed through the UNFCCC, but currently much of it is still managed by bilateral donors and multilaterals.

In theory, climate finance should be deployed according to the principles of the Paris Declaration on aid effectiveness, including country ownership, harmonisation and managing results for poor people. However, in practice these principles often remain aspirations and there are a number of barriers to achieving them, including lack of government interest, vertical 'siloing' of issues in sectoral ministries, confusion as to who has responsibility for cross-ministerial agendas and a proliferation of external climate funds. Another frequently encountered problem was that **climate finance has typically been routed via environment ministries, which often have limited convening power and influence.**

It has also proved difficult to achieve harmonisation between donors on climate change programming. One response to this has been the idea of multidonor trust funds (MDTFs), of which there is some early experience in Bangladesh. For bilaterals like DFID, such coordination will mean working closely with actors such as the World Bank and the regional development banks.



<http://www.youtube.com/watch?v=y3lfNcF5ymU>

The Learning Hub discussions identified advantages of working through MDBs, including:

- being able to contribute to making big opportunities happen
- having access to specialist expertise, and
- the prospect of more influence and access in countries where DFID is a small donor

But it was also recognised that such funds can also be slow to spend, attribution of impact is diluted, and any one bilateral will have less influence over how the money is spent once the basic decision is taken. A degree of competition between donors was also seen as valuable.

The Learning Hub did not provide any easy answers to these challenges. Participants recognised that the Paris Declaration principles are clearly important for delivering climate finance, but also that a simple, mechanical application is unlikely to work. A key dilemma for climate programming is **how to ensure the principle of results for poor people where there is a lack of strong ownership of the agenda.**

The Learning Hub discussions also emphasised the importance of a number of different kinds of actors beyond the usual national government institutions who are important for understanding context and who should be borne in mind when designing programmes:

- **Local and city government:** There is often a lack of good mechanisms linking national and sub-national policy levels found in developing countries. There can thus be benefits of working directly with actors like city governments, who may be more likely to innovate.
- **Non-traditional donors:** such as China and India. China is now a major funder of infrastructure and construction in low-income countries, including in the low carbon energy sector. Such actors use different tools and have a different approach from traditional donors.

- **Private sector actors:** Businesses often have key roles in both planning and delivering adaptation, but they are especially important for low carbon development, as they will in practice have to deliver low carbon technologies and investment in many cases. This applies not only in the energy sector, but also in providing finance for forestry and low carbon land management projects. **It is important to recognise that the private sector is not homogeneous.** The small companies and social enterprises typically involved in delivering small-scale low carbon energy to rural poor households are very different from the technology firms and investors involved in large-scale infrastructure. These different actors have different concerns about policy. Small companies often need help with business models and access to finance for scaling up, whereas investors are principally concerned about different kinds of risk, implying a range of possible measures to reduce that risk (see table: Matching type of leveraging tool).

Matching type of leveraging tool to type of risk and context

Source: Adapted from Brown, J. and Jacobs, M. (2011) [Leveraging Private Investment: The Role of Public Sector Climate Finance](#), ODI Background Paper, London: Overseas Development Institute

Why doesn't the private sector want to invest in low carbon development?

Speaking: Matthias Rhein, Senior Policy Advisor, DFID Indonesia

<http://www.youtube.com/watch?v=NtNKXZhwgtU>

2. Spend some time understanding the political economy of climate change and climate policy

Political economy lay at the heart of most of the issues covered in the Learning Hub. There was a strong consensus that for effective climate programming and policy engagement, DFID needs to understand:

- the **interests and incentives of powerful actors** in politics, government and the private sector
- how **formal and informal institutions** work
- what the **dominant policy and political narratives** are; and
- what kinds of **coalitions for change** might be possible

Different kinds of political economy analysis are possible, including macro, sectoral and problem-driven. Within DIFD a key message was the importance of engaging governance advisers with climate issues, and the use of existing resources such as the [DFID Political Economy 'How to' Note \(DFID, 2009\)](#).

Learning Hub discussions pointed to **opportunities for DFID to engage with the political economy of climate change and development** at several levels:

- **Dialogue with leaders** on the visibility of and priority given to climate change issues, both adaptation and low carbon development. In many cases, emphasising co-benefits or using framings such as ‘jobs and green growth’ instead of low carbon growth, may be more effective because they are more aligned to existing interests and narratives. This was cited at the Jakarta Hub event as being the case for Vietnam
- **Influencing the allocation of climate finance**, with an understanding of drivers including rent-seeking, institutional incentives and party political considerations. It is important that DFID is aware of these dynamics, and seeks to minimise distortions and protect the interests of poor people wherever possible
- **Supporting the reform of particular policies.** A good example is that of fossil fuel subsidies. These are not only a barrier to low carbon development and a major fiscal drain in some countries, but also typically poorly targeted. Despite the multiple potential benefits, reforming such subsidies is a major political challenge. However, approaches informed by an analysis of the main actors and interests have been more successful, in cases such as Ghana
- **Managing risks in individual projects**, for example political and counterparty risk adding to financing costs in low carbon infrastructure projects, or contested land rights undermining forest projects

What is rent seeking?

Rent-seeking generally implies activities to extract value from others without making any contribution to productivity, often by changing the regulatory context in their own favour.

3. Fragile states are a particularly difficult context, where building stable states is the priority for climate programming

The Learning Hub also devoted time to a particular focus on fragile states. In such countries, where there are failures of the authority and legitimacy of states and public services, the constraints arising from the delivery context are most severe. In fragile states, political factors, including rent-seeking, are more extreme than in other low-income countries. Levels of trust in government are even lower than elsewhere, capacity to manage information about climate stresses is typically very weak and the environment for low carbon investments is poor. Such states are less able to handle external shocks, including new shocks arising from climate change and from some climate policies; one example raised in the Hub was food price spikes arising from failed harvests and biofuel policies.

The message from the Learning Hub was that, in such contexts, **the key immediate goal is to build institutions for a stable, peaceful state**. As discussed elsewhere, the most important elements of adaptive capacity and development of a low carbon development path are strong underlying institutions, higher incomes and improvements in wellbeing for poor people, including health and education. All of these things require stable peaceful states.

This implies that DFID’s climate programming should engage with the core issues in fragile and post-conflict countries to contribute to peace-building and capacity building, whilst investing in the adaptive capacity of such institutions.

Issues highlighted in Hub discussions included:

- the desirability (but also the difficulty) of **maintaining stable funding** in fragile state contexts
- the crucial importance of engaging with **non-state actors** as well as state actors
- support to **sub-national and regional, transboundary policy processes** as well as at the national level
- specific projects for climate change in fragile state contexts will need to be **sensitive to the potential for conflict**, for example the possibility that competition for climate finance itself may fuel conflict

Learning Hub discussions showed that simply getting climate change on to the agenda in fragile states can often be particularly difficult. **One potential entry point is the idea of climate change as a 'threat-multiplier'**, for example where climate-related pressures on natural resources interact with other drivers of insecurity within a political context (the case of Sudan was raised in the London Hub event) or lead to erosion of livelihood options, migration and vulnerability to trafficking in cities.

Finally, an overarching message on climate programming in fragile states was the importance of simplicity: **'Don't make it complicated, make it clear, make it deliverable'**.

Where next?

FOCUS:

How can my work retain focus whilst recognising the multidimensional nature of climate change?

It is essential that those involved in climate change programmes know **where to look for change**, rather than trying to define what the change should be. This involves learning about the processes, institutions, relationships and systems that are capable of managing and responding to change in ways that reduce poverty, build resilience and enhance adaptive capacity of citizens and states.

1. Understanding the nature of the challenge

Development practice is critically challenged by climate change because it is both a result of the modern development process and a challenge to future development and poverty reduction globally. Climate change therefore needs to be considered as part of a broad development-based approach which must also:

- manage climate impacts through planned adaptation
- prepare communities and institutions to cope with future change through building adaptive capacity
- reduce the extent of climate change through emissions reduction and mitigation
- better understand the risks and opportunities that climate change presents to development

Popular macro approaches to building resilience to climate change often rely on top-down expert technical advice. They tend to take a linear approach to identifying 'solutions' and have a narrow focus on 'proofing' centralised programmes in traditional sectors such as water, agriculture and health. However, Learning Hub participants concluded that:

- neither mainstreaming climate change into existing strategies and sectoral plans *nor* designing standalone adaptation plans will necessarily deliver pro-poor outcomes
- top-down planning usually fails to grasp micro-level vulnerabilities and opportunities
- Looking for a single 'magic bullet' misses a broader analysis of the issue

This section of the Learning Hub output focuses on sharing areas where consensus for action emerged from the Learning Hub process. It begins to map out the types of contextual and political analysis, relationships and interventions that are considered critical for moving towards a development agenda that is both low carbon and climate resilient.

2. Start with a 'whole' systems perspective

Climate change impacts across sectors and scales, with impacts in one space, time or jurisdiction leading to disturbances (either positive or negative) in another, closing some development options but potentially opening others. Action for adaptation and emissions reduction at all levels will have consequences for development strategies and pathways and vice versa. **A greater focus on how different sectors, programmes, policies and interventions relate to one another is therefore needed.**

Thinking about the 'whole system' can help to:

- identify where climate signals are strongest and where the critical connections are for delivering joined up solutions
- reduce the potential for unintended consequences in other parts of the whole, by engaging with potentially 'messy solutions' such as investing in work in destination communities for migrants seeking better livelihoods
- provide the space within which to map out and identify the co-benefits (and trade-offs) of low carbon, adaptation and poverty reduction approaches
- consider the longer term issues through mapping out potential links between environmental degradation, economic crisis and conflict, amongst others

What is a 'whole' systems perspective?

There are many types of systems and sub-systems from ecosystems to energy and water systems to human development systems (i.e. health, education). Taking a whole systems perspective means seeing the whole system as a sum of all these parts and understanding how they connect with each other, rather than thinking about them in isolation – or silos. Problems are then seen as connected to the whole rather than as isolated problems confined to a discrete sub-system – this helps to identify options or solutions external to the sub-system in question.

A whole systems perspective should not overlook the need for improving understanding of the impacts of climate change on particular sub-systems or sectors. For example, detailed knowledge on water availability and distribution, agricultural productivity, or disease distribution and transmission is essential for building a robust 'whole system' understanding.

A whole system perspective means finding **different ways of working with new actors, building alliances between unusual partners, and ensuring information and knowledge flow across sectoral boundaries.** The next section points the ways in which understanding actors, supporting dialogue, facilitating information flows, monitoring and reflective learning can help to respond to such complexity.


NOTE:

DFID's Strategic Programme Review process may provide the ideal opportunity to bring together advisers in a country office to begin to map out the key actors and the critical sector links to begin to build a coherent DFID response in-country.

3. Undertake political economy analysis and stakeholder mapping

Understanding the way that climate change is understood and articulated by politicians, governments, organisations and citizens is essential for identifying existing interests and for creating the incentives to link with the wider climate change agenda. It will help to answer questions including:

- ❓ who is best placed to effect change in my context and how can I reach them?
- ❓ what is the most appropriate entry point for making climate change relevant?; and
- ❓ what are the potential blockages and opportunities that exist for taking forward a climate change agenda?



Joanne Manda

<http://www.youtube.com/watch?v=SDW6W0EUXTI>

A clear message from Hub participants was that **it is better to work with the existing direction and motives in a country and not to try and confront or redirect these interests.**

For example, in many countries economic growth will remain a central part of the development agenda, so there will be a need for a strong story around the role of growth in addressing climate change. This will involve identifying what types of growth can be low carbon, contribute to building adaptive capacity *and* support jobs, employment and wealth generation.

Examples highlighted by Hub research into LCD include:

- In Ethiopia, the key drivers of low carbon development are poverty reduction and economic growth, while energy security is less of an issue and climate change mitigation even less
- In China, however, energy security was marginally more important than economic growth, followed closely by mitigation of climate change; however, poverty reduction motives were negligible

Average scores for motives for low carbon development in Ethiopia

Understanding the entry points and stories relevant to your context may mean that **a country office may need to invest in improving cross-disciplinary work.**

For example, if drought is a common 'problem framing' for climate change then an agriculture or livelihood adviser may become a key ally, alongside nutrition or Water Sanitation and Hygiene (WaSH) advisers. This understanding may also require establishing new sets of relationships with sympathetic external actors who have established connections to actors and institutions with the capacity to mobilise action.

4. Improve the coordination of activities both horizontally (between sectors) and vertically (between scales of governance)

Building a systematic understanding of climate impacts needs coordination and dialogue between sector experts at all scales, between decision-makers from international to local levels and between states.

Enabling dialogue across sector boundaries can:

- generate a diversity of voices and insights to inform climate change responses
- increase the flow of knowledge and information between sectors
- identify common entry points and generate political will for climate action in disparate departments and institutions
- identify both co-benefits and trade-offs between short and long term climate change and development interventions

Addressing the issue of scale may be more challenging. There is frequently a gap in effective mechanisms that link the national, the sub-national and local levels. Hub participants were in strong agreement that whilst Low Carbon Climate Resilient Development (LCCRD) should be locally informed through bottom-up processes, top-down leadership is also required to mobilise actors, institutions and resources. There remains a need to address the middle ground to ensure synergies and knowledge exchange between the two. The diagram depicts the central point where top-down and bottom-up processes intersect for adaptation.

Focussing on supporting a sub-national or 'mezzo' level set of institutions can:

- improve knowledge and information flows to the local level, which can support communities to adapt and plan for uncertainty
- create synergies between autonomous adaptation occurring in households, communities and the informal economy and planned – or top-down – adaptation to expand the adaptation options for citizens
- broaden understanding of the role of the informal economy
- enable local voices to influence national policy through channelling stories and evidence from the ground of grassroots needs and agency
- channel finance to low carbon business entrepreneurs operating at the local level

Identifying the space for effective adaptation

5. Keep the focus on the poor at the centre of the climate change response

Throughout the Learning Hub process participants reflected on DFID's priority – 'to eliminate poverty' – seeking to identify how a poverty focus could and should be at the heart of low carbon climate resilient development programming. Although both institutions and citizens need to be capable of responding rapidly to change when it happens, scientific uncertainty around the direction, intensity and timing of change means that planning for adaptation and mitigation interventions requires two key approaches:

- reduce existing vulnerabilities, build resilience and adaptive capacity in the here and now,
- mobilise for the future by:
 - a. using climate foresight or scenario planning to identify a range of responses and solutions to a range of possible futures
 - b. triggering broader shifts in thinking, programming and policy that can help to embed flexibility, learning and connectivity in systems and plans

The first approach recognises that in the short to medium term **climate change responses must address underlying causes of vulnerability and exposure to poverty.**

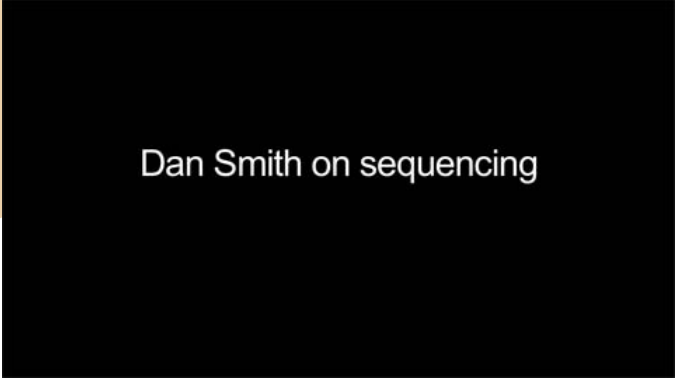
Taking a co-benefits approach suggests that the focus should be on:

- investing in 'gateway' or underlying systems such as water, transport, energy, health and education and in social policy that supports access to such systems
- joining up climate change work with social development and vulnerability work to increase the resilience of households and communities
- investing in governance work

The second approach requires you to plan and build for a different future. It recognises that the way in which climate change programmes are linked with social development, governance and underlying systems requires more than business-as-usual development.

For example, work on access to water resources must take into account the changing patterns of rainfall in terms of timing and location, that work on access to energy and transport needs to be low carbon and that work on cash transfers and food for work can both tackle chronic poverty and seek to build collective adaptive capacity.

But low carbon climate resilient development must also take a longer-term view and invest in action now that will deliver bigger benefits in the future. For example, some of the big opportunities for low carbon development, such as fossil fuel subsidy reform involve long-term policy engagement that will provide an indirect chain to emissions and poverty reduction impacts in the future. Making development low-carbon whilst tackling the underlying causes of poverty and the impacts of climate change requires thinking about both the immediate challenge and the longer-term changes that are required to shift to a low carbon climate resilient development pathway.



Dan Smith on sequencing

<http://www.youtube.com/watch?v=PL67B-21hqE>

6. Embed a culture of learning into organisational behaviour, policy and programmes

Climate change suggests that there will be no 'steady state' and therefore no 'final solution', but a continuous process within which learning, experimentation and adjustment must take place. It was widely agreed through the Learning Hub process that organisations need to invest in systematic learning processes to help prepare them to respond to change, both in their internal operations and external relationships.

Two approaches that should be applied to support learning are:

- ➔ innovative and experimental programmes
- ➔ monitoring and evaluation of change processes and outcomes

Supporting innovation and experimentation demands a positive organisational approach to risk – investing where the potential returns on a positive outcome are high. It is essential that such programmes identify points to **take stock and reflect on what has been learnt, to accommodate new knowledge and then to review and revise both goals and possibilities** – referred to in the Hub as an 'act, learn, reflect, adjust and act again' approach. This kind of learning needs to be systematically embedded within all programmes, and regular monitoring helps to support this.

Monitoring can increase the opportunities for identifying potential trade-offs between sectors and goals, for bringing new knowledge into programme planning, for adjusting activities and outcomes and for sharing learning with others. However, monitoring and evaluation needs to look not just at *what* is changing, but to try and understand *why* change is happening, *where* it is happening and *what* processes or structures facilitate such change.

And finally, learning – as embodied in this Learning Hub output – should be viewed as part of a broader knowledge management and exchange process; supporting peer learning within and between donors and international development agencies, and supporting South-South learning networks.

Where next?

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