

## Taking steps: mainstreaming national adaptation

Climate change poses a massive threat to development. The poorest populations of poor countries – the Least Developed Countries, Small Island Developing States, and the nations of Africa – face the concentrated challenge of tackling the worst of the impacts with the least capacity to do so. Clearly, adaptation to climate impacts must be seamlessly integrated into any development planning and policy. This four-step plan for mainstreaming climate change aims to fulfil that need. A ‘learning by doing’ approach, it focuses first on national capacity to ensure that development in all sectors and at all levels is effectively climate-proofed.

### Policy pointers

- **Climate change is a** development issue, making integrating adaptation into broader development policy and practice key – a process known as mainstreaming.
- **In mainstreaming,** information, policies and measures addressing climate change are streamed into ongoing, general development planning and decision making.
- **A simple four-step guide** is available for the task.
- **Once climate awareness** and capacity start to grow, full integration into development plans can begin, starting at national level.

### The bigger picture: an integrated development process

A lack of resources, poor institutions, bad governance and inadequate infrastructure<sup>1</sup> leave societies less able to adapt to climate impacts. But development, if sustainable, can reduce that vulnerability. So adaptation is increasingly seen as key to good development practice – while development to improve the lives and resource access of people at the frontline of climate change is increasingly seen as essential to successful adaptation.

At the same time, there can be tradeoffs between climate change and development, particularly when the two are considered in isolation. For instance, economic development strategies can increase dependency on climate-sensitive resources; or there can be a mismatch between donors’ adaptation activities and the development priorities of recipient countries. Climate change also adds urgency to vulnerability reduction: as new, unstable and uncertain climatic conditions are bound to emerge, resources and research will need to keep pace.

Development and adaptation need to be considered in tandem. Otherwise development will result in maladaptation – an unintended increase in vulnerability – while adaptation and mitigation strategies will be inconsistent with development objectives.

One way of ensuring an integrated approach to adaptation and development is through mainstreaming. This means integrating policies and measures addressing climate change into ongoing sectoral

and development planning and decision making. Mainstreaming ensures the long-term sustainability of investments and reduces the sensitivity of development activities to climate change.<sup>2</sup>

There is a lot of rhetoric about integrating adaptation into development, but little understanding of what this means in practice. What follows is a rationale and framework for mainstreaming adaptation into development at national and local levels.

### Joined-up thinking: climate change and development

Mainstreaming climate issues into the broader development process is vital because, as we’ve now seen, these issues are closely linked. Those links can be clearly seen in the implications of some Intergovernmental Panel on Climate Change (IPCC) findings for the global development targets of the Millennium Development Goals (MDGs).

IPCC’s Fourth Assessment Report outlines several impacts of climate change in developing countries, including:

- growth in some drought-affected areas
- more frequent heavy precipitation events, increasing flood risk
- probable negative overall impacts of food production in developing countries, as crops will be more likely to fail and livestock to contract diseases or die
- eventual effects showing up in human development indicators such as health and education.

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Some of the 2015 MDG targets are directly sensitive to these impacts: tackling hunger caused by droughts and floods; providing access to water and sanitation; and preventing and treating malaria. The World Bank estimates that without adaptation, the cost of climate impacts in exposed developing countries could range from a small percentage of GDP to tens of per cent, or up to US\$100 billion at year.

Development interventions to achieve the MDGs are also threatened by climate change. The World Bank estimates that up to 40 per cent of the development financed by overseas assistance and concessional loans (lent on advantageous terms) is sensitive to climate risk.<sup>3</sup>

As sustainable development reduces vulnerability to climate change, the role of development assistance in enhancing the adaptive capacity of the most vulnerable countries is key. Development in line with the MDG targets — reducing poverty, providing general education and health services, improving living conditions in urban settlements, providing access to financing, markets and technologies — will improve the livelihoods of the most vulnerable and in turn their ability to engage in adaptive action.<sup>4</sup>

We have already seen how misguided development practice can actually promote maladaptation. Investment in an irrigation scheme that fails to take account of shifts in rainfall predicted by climate models may not be sustainable in the long term. Irrigation may in fact increase dependency on this water source as well as practices or crops reliant on it in the short term.

A more useful plan could be more efficient use of water, or altering cropping patterns — a wise use of limited resources that will make development investments climate resilient and contribute towards adaptation. But to ensure this kind of outcome, an integrated approach is needed across sectors and at all levels.

Vulnerability reduction works best when it is part of national planning, reflected in both policies and projects.<sup>5</sup> It is therefore important that capacity is built to integrate climate change across development planning at all scales.

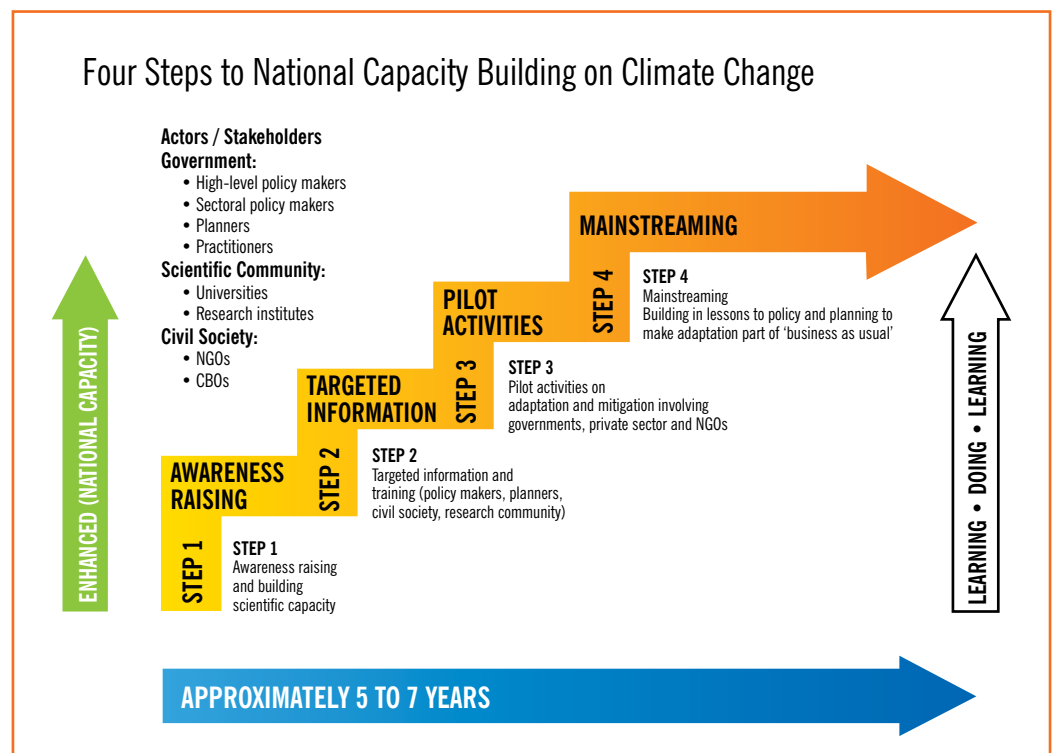
### Mainstreaming: the four-step process explained

Mainstreaming is seen as a more sustainable, effective and efficient use of resources than designing and managing separate climate policies.<sup>6</sup> However, there is scant understanding of what mainstreaming actually involves in practice.

A recent report from the Washington DC-based World Resources Institute states in relation to mainstreaming that 'concrete models and approaches are needed'.<sup>7</sup> This four-step approach (see Figure below) fills that gap.

**Step one: awareness raising** The relevance of climate change to development pathways and processes needs to be highlighted – and in some cases climate change must be identified as an urgent priority across sectors.

This should be presented in the context of existing development concerns: addressing the underlying



causes of vulnerability must be part of the first step. It can help to draw on experiences of climate change at the household, community and district level, and make clear how the risks people experience have been affected by climate variability and climate change.

The existing tools for climate change data analysis need improving to provide information that is relevant, credible and, in particular, meaningful in relation to the everyday risks people experience.

Investing in scientific and technical capacity on climate change is needed to ensure climate information is accurate and can best inform development policies and plans. Part of this is downscaling climate modelling data as far as can be usefully meaningful, as well as sustaining climate observation networks at local and regional levels.

In addition to generating climate information, the existence of this information and its relevance to decision makers must be communicated. A recent 'gap analysis' in Africa showed that climate information does exist that could aid decision makers in making 'climate smart' decisions.

This information is, however, seldom used.<sup>8</sup> Improving climate services, raising awareness about available climate information and providing evidence of its value to decision makers are all essential to aligning development and climate change priorities, and building capacity on climate change.

**Step two: targeted information** Scientific information will need translating into a format that different stakeholders, including policymakers, planners, civil society organisations and research communities, can use in practice. Incorporating this kind of data will strengthen the links between processes oriented to development and to the UN climate change convention.

However, the relevant sectors and organisations will need to become receptive to the idea of using scientific information. This demands investment in institutional capacity across all scales, but particularly at the district level, with participation from local communities.

In parts of Africa, for instance, a combination of poor local climate data and a failure to incorporate climate considerations into policy and practice has meant that the benefits of early warning systems and improved climate science are generally failing to reach decision-makers.<sup>9</sup>

So along with the type of new information and technologies for adaptation, the processes needed to deliver, communicate, finance, receive and operationalise it need to be considered.<sup>10</sup> Communication channels and forums to support information and skills transfer need to be developed.

## Adaptation in action: the case of Cyclone Sidr

Bangladesh is one of the world's most climate-vulnerable countries, regularly hit by flooding and cyclones. Yet its highly effective early warning system has already saved tens of thousands of lives. This capacity is key in a region where extreme weather is set to become more frequent and intense as climate change progresses.

Cyclone Sidr – one of the strongest storms ever in the Bay of Bengal – hit Bangladesh in November 2007. The government, however, was prepared: improved early warning technology had supplied news of Sidr's direction and intensity 72 hours before. A network headed by the World Meteorological Organization's global cyclone observatory started feeding data to its regional outpost at the Indian Meteorological Office in New Delhi.

The message was relayed to authorities in Dhaka, who passed it on to the local Red Crescent office. Some 40,000 trained Red Crescent volunteers then disseminated the information to the 15 worst affected districts, cycling around the country, using megaphones to order residents into 1800 cyclone shelters and 440 flood shelters.

When Sidr hit, 2 million were under shelter.

Red Crescent estimated the death toll as between 5000 and 10,000. A cyclone of a similar magnitude in 1991 killed over 190,000 people.

This integration of hi-tech information into low-tech, low-cost, locally appropriate information dissemination methods maximised the outreach of the system. It also demonstrates the value of cross-sector and cross-scale coordination. The system operates in conjunction with a broader action programme supported by donors including the United States and the European Union, which since 1991 has supported disaster preparedness and improved post-disaster relief and reconstruction. Under this programme, early warning and evacuation systems are integrated with infrastructure such as cyclone walls to protect from storm surges.

*Sources: Bangladesh Red Crescent Society, personal communication; IRIN News, 23 November 2007; Humanitarian Information Unit, US Department of State.*

**Step three: piloted activities** In this stage, action on adaptation and mitigation, involving government and nongovernment organisations and the private sector, need to be piloted to demonstrate good practice. Policymakers and planners must be convinced of the relevance of climate change to their work and be able to learn from demonstrable results.

Bangladesh is a case in point. Although research dating back to the late 1990s has shown the implications of climate change here, it took three major natural disasters in the last two years, coupled with evidence of effective systems for dealing with them, to bring the importance of adaptation home to national policymakers (see Box). So project planners and managers will need assistance to align and integrate risk reduction and climate change adaptation information into their development priorities.

**Step four: mainstreaming** The phase where climate change is fully integrated. It demands a shift from 'business as usual' to investments and planning that incorporate climate change information.

Further capacity building will be needed at the policy level across sectors to ensure that lessons from Steps 1 to 3 can be effectively built into the policy process. This capacity building at the national and sectoral levels

should start alongside Step 1 to ensure the targeted stakeholders are fully engaged in the entire process. However, it may take several years before the lessons drawn from Steps 1 to 3 are fully mainstreamed.

Once climate change awareness and capacity start to grow, full integration into national, sectoral and local development plans can begin. At the national level, bilateral country programmes can support the

integration of climate change priorities into national planning strategies, for example Poverty Reduction Strategy Papers. This should set the stage for the integration of climate change concerns at sectoral and local levels, given that all development planning below the national level should tie in with national development priorities.

■ **SALEEMUL HUQ AND JESSICA AYERS**

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CONTACT: Saleemul Huq  
 saleemul.huq@iied.org  
 3 Endsleigh Street,  
 London WC1H 0DD, UK  
 Tel: +44 (0)20 7388 2117  
 Fax: +44 (0)20 7388 2826  
 Website: www.iied.org

## Notes

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- <sup>3</sup> Burton, I., Diringer, E., and Smith, J. 2006. *Adaptation to Climate Change: International policy options*. PEW Centre on Global Climate Change, Arlington, Virginia.
- <sup>4</sup> Levina, E. *Adaptation to Climate Change: International agreements for local needs*. Document prepared by the OECD and IEA for the Annex I Expert Group on the UNFCCC. OECD/IEA 2007. Paris. See [www.oecd.org/env/cc/aixg](http://www.oecd.org/env/cc/aixg)
- <sup>5</sup> Burton, I., and van Aalst, M. 2004. *Look before You Leap: A risk management approach for incorporating climate change adaptation into World Bank operations*. Review prepared for the Global Climate Change Team, World Bank. World Bank, Washington DC.
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