

Executive Summary

Climate change impacts such as drought, floods, severe weather and sea-level rise are likely to result in food shortages, increases in vector-borne diseases, infrastructure damage, and the degradation of natural resources upon which livelihoods are based. The negative impacts of climate change will hit poor people and poor countries disproportionately. Development choices made today will influence adaptive capacity and also determine future greenhouse gas emissions. In other words, climate change threatens development objectives and is in turn affected by development choices. Furthermore, the impacts of climate change are likely to become progressively more significant in the years and decades beyond the 2015 target date for the achievement of the Millennium Development Goals.

In principle, a range of development activities could help reduce vulnerability to many climate change impacts. In some cases, however, “development as usual” may inadvertently increase vulnerability. For instance, new roads might be weatherproofed from an engineering standpoint, even taking future climate into account, but they might trigger new human settlement in areas highly exposed to particular impacts of climate change, such as coastal zones vulnerable to sea-level rise. This is known as maladaptation. The risk of maladaptation points to the need for partner countries to systematically assess climate risks and vulnerabilities, and to include potential adaptation measures in development policies, plans and projects.

Yet, many development policies, plans and projects currently fail to take into account climate variability, let alone climate change. While efforts to integrate climate change adaptation into development will be led by developing country partners, donor agencies have a critical role to play in supporting such efforts as well as in integrating such considerations within their own organisations. To this end, partners and donors alike need adequate guidance.

Objectives and approach of this policy guidance

This policy guidance is intended to provide policy makers and practitioners in development co-operation agencies with information and advice on how to mainstream climate change into development. It is a joint endeavour by the OECD’s Environment Policy Committee (EPOC) and Development Assistance Committee (DAC) in response to the 2006 *OECD Declaration on Integrating Climate Adaptation into Development Co-operation*, which commits OECD members to “work to better integrate climate change adaptation in development planning and assistance, both with their own governments and in activities undertaken with partner countries.”

The objectives of this policy guidance are to:

- promote understanding of the implications of climate change on development practices and the associated need to mainstream climate adaptation in development co-operation agencies and partner countries;
- identify appropriate approaches for integrating climate adaptation into development policies at national, sectoral and project levels and in urban and rural contexts;
- identify practical ways for donors to support developing country partners in their efforts to reduce their vulnerability to climate variability and climate change.

In line with the principles and objectives of the *Paris Declaration on Aid Effectiveness*, the focus is on strengthening partner countries' capacity to identify and prioritise adaptation responses and, where necessary, integrate them through relevant measures at various levels. Another key objective is to support the harmonisation of donor practices in these areas.

Target audience

This policy guidance is formally targeted at development co-operation agencies. It should, however, also be of direct interest and relevance to policy makers and practitioners in developing countries, given that it is organised around partner countries' institutions and processes, as called for by the *Paris Declaration on Aid Effectiveness*.

While development practitioners are the core audience, the policy guidance can also help inform climate change negotiators, practitioners and policy analysts about the development processes and governance contexts within which decisions to implement adaptation might eventually be taken. Therefore, it may be of relevance to these communities as well.

Structure

The policy guidance is divided into three parts:

Part I – *Understanding the Challenge* – introduces human-induced climate change, places it within the context of weather and natural climate variability, and discusses its implications in key developing country regions. In addition, it introduces the concepts of adaptation and mitigation, and the need to integrate climate change responses into regular development activity.

Part II – *Integrating Climate Change Adaptation at National, Sectoral and Project Levels* – takes a partner country perspective and discusses in detail how to assess and address climate risks and opportunities, and how to integrate adaptation responses within development at key decision-making levels: national, sectoral and project.

Part III – *Integrating Climate Change Adaptation at the Local Level* – examines the specific challenges and opportunities arising from climate change in urban and rural contexts and discusses how to incorporate adaptation considerations within government- and community-level processes in both contexts.

Approach

Adaptation to climate change will involve specific dedicated measures as well as the integration of adaptation considerations into existing development processes and activities. The emphasis of this policy guidance, however, is on the latter. In line with donor efforts to work through and support partner countries' own systems, the policy guidance primarily highlights partner country processes and institutions where climate change adaptation could be integrated.

The policy guidance takes an integrated approach to adaptation. Core decision-making and policy processes as well as key actors are identified at each of the levels considered in Parts II and III. The governance architecture and steps within the policy cycle relevant to each level are described. The objective in each chapter is to identify particular *entry points* along the cycle where considerations of climate change adaptation could be incorporated. These entry points provide opportunities for the identification, integration and implementation of measures and investments specifically designed to enable and support adaptation to climate change but which had not been envisaged in the initial plan, programme or project. At each of the stages where adaptation considerations could be incorporated, specific *interventions* are identified. Interventions will generally take a very different form at different points in the cycle, since they apply to very different processes and at different authority/jurisdiction levels. For example, enhancing the climate resilience of a long-term policy will be very different from enhancing the climate resilience of a set of discrete project proposals for which many key parameters (*e.g.* geographical location, scale, and technology choice) are known.

In examining potential interventions, the policy guidance advances the notion of applying a *climate lens*. A climate lens is an analytical tool to examine a strategy, policy, plan, programme or regulation. The application of such a climate lens at the national or sectoral level involves examining: (i) the extent to which a measure – be it a strategy, policy, plan or programme – under consideration could be vulnerable to risks arising from climate variability and change; (ii) the extent to which climate change risks have been taken into consideration in the course of the formulation of this measure; (iii) the extent to which it could increase vulnerability, leading to maladaptation or, conversely, miss important opportunities arising from climate change; and (iv) for pre-existing strategies, policies, plans and programmes which are being revised, what amendments might be warranted in order to address climate risks and opportunities. For example, planned development of certain geographical zones (*e.g.* coastal areas vulnerable to sea-level rise and storm surges) or sectors (such as hydropower in the energy sector) may be viewed in a different light when the medium- to long-term risks posed by climate change are taken into consideration.

The application of a climate lens to a policy, strategy, regulation, plan or programme can help improve its general directions and priorities. However, its real impact will materialise only at the stage where it is translated into actual enforcement of decisions, and implementation of activities and investments on the ground. The sectoral planning, programming and project implementation stages, in particular, provide opportunities for the translation of results and recommendations of the climate lens into actions on the ground. The implementation of the interventions identified at these stages should lead to enhance climate-resilient programmes and, ultimately, on-the-ground projects.

Approaches for climate integration: key findings and recommendations

National level

The national level is critical for mainstreaming climate change adaptation. At this level, strategic decisions are taken which create the enabling environment for public- and private-sector actors as well as communities and households. It is also at this level that medium- to long-term development and poverty reduction strategies and objectives are established, through national visions, national development plans and strategies.

At the national level, several types of initiatives can be undertaken to enable the integration of adaptation into development processes. A “whole of government” approach needs to be adopted. This involves the engagement of key stakeholders, improving the co-ordination with existing mechanisms for disaster risk reduction and the implementation of relevant multilateral and regional environmental agreements. It also entails reviewing and adjusting relevant regulations and standards to reflect climate change impacts. In addition, an important prerequisite for informed decision making on adaptation is that it should be based upon the best available information on the implications of both the current and the future climate in the country. To this end, the availability and quality of climate information needs to be improved. This will involve improving the coverage and quality of climate monitoring data, commissioning assessments of climate change impact, vulnerability and adaptation if they are not already available, and using multi-model ensembles with a clear articulation of associated uncertainties.

Adaptation should also be incorporated at several stages of the national policy cycle. A climate lens should be applied at the policy formulation stage to national visions, strategies and policies. The application of a climate lens to national policies and to planning and regulatory frameworks can allow, *inter alia*, the identification of particularly vulnerable geographical zones or sectors. In addition, a climate lens can be applied at the planning stage to bottom-up sectoral proposals, which would lead to better (“climate-proofed”) plans or proposals. The results of this analysis can be acted upon in the course of translating national policies and plans into sectoral-level directives or orientations at appropriate entry points in the policy cycle where interventions are identified. This includes, in particular, the allocation of corresponding financial resources to the sectoral-level authorities responsible for translating national priorities into action on the ground. The national policy cycle also provides the opportunity for several other types of interventions. At the planning stage, a suggested intervention is the proactive inclusion of programmes and projects specifically aimed at enabling adaptation to climate change. At the resource allocation stage, interventions may involve reallocating funding to (or increasing budget for) more vulnerable sectors and regions and funding adaptation-specific activities.

Priorities at the national level include:

- Improving the coverage and quality control of climate monitoring data. Commissioning national-level assessments of climate change impacts, vulnerabilities and adaptation options. This will lead to improved and more targeted information on how climate change affects specific national priorities and core government functions.
- Moving the co-ordination for adaptation into powerful central bodies, such as the Office of the President or Prime Minister or planning agencies.

- Including considerations of climate change risks within long-term visions, poverty reduction and sustainable development strategies.
- Making a sound economic case for investing in adaptation. Ensuring adequate resource allocation (for example through a horizontal fund for adaptation) for the incorporation of adaptation considerations in policies, plans and programmes.
- International donors can encourage action on adaptation through budgetary support mechanisms, and country and joint assistance strategies.

Collecting climate-related information will take time, and uncertainties will always remain. Fortunately, many measures provide a host of development benefits in addition to fostering climate change adaptation. They can be implemented even in the presence of remaining uncertainties about future climatic conditions. These are often called “no regrets” or “low regrets” measures. Policies to integrate climate change adaptation need not and should not be put on hold pending the availability of all desired information.

International donors have a key role to play in supporting the above actions to facilitate the integration of climate change adaptation at the national level. They can support capacity building efforts to better monitor climate, as well as to assess future climate change impacts and adaptation priorities at the national level. In this context there is a need for awareness-raising about the risks posed by climate change within donor agencies. Donors can also use high-level policy dialogues as a vehicle to raise the profile of adaptation with senior officials in partner countries in key ministries like Finance and Planning.

In addition to capacity development support, donor agencies can provide financial support by, for example, contributing to a horizontal fund for adaptation managed by a central body such as a Planning or Finance Ministry and which sectoral ministries could tap to meet the additional costs of integrating the needed adaptation measures into their planned activities or investments. Finally, donors need to better co-ordinate and harmonise their efforts on adaptation at the country level.

Sectoral level

Many climate adaptation measures and investments will be undertaken by sector-level authorities. In the case of “public service delivery” sectors, this may primarily involve strengthening the monitoring of key climate-relevant variables which have an impact on their activities and factoring in the consequences, as well as ensuring that facilities which are established under their sectoral authorities’ responsibility are not located in particularly vulnerable areas or are capable of withstanding climate conditions. In the case of sectors which primarily undertake physical investments, the key will be to ensure that planned infrastructure investments are designed and located so as to withstand future expected climatic conditions. Particular emphasis should be placed on sectors or domains where investments or decisions have long-term consequences and that would be very costly to modify later. Similar considerations apply to authorities responsible for land-use planning.

At the sector level, climate change adaptation can be integrated at several stages along the policy cycle. A climate lens can be applied at the sectoral policy formulation and sectoral planning stages. Applying a climate lens to sectoral strategies and policies and to the corresponding sectoral plans is critical to avoid maladaptation risks and to allow for the identification of new opportunities emerging from climate change. Several

interventions have also been identified at the different stages of the policy cycle. At the planning stage, the intervention involves building in necessary adaptation-specific activities. At the resource allocation and programming stage, three interventions are suggested: (i) incorporating the adaptation activities and projects identified during the planning stage; (ii) including climate change risks in the screening criteria used to assess project proposals before their inclusion into the investment programme; and (iii) "making room" in the budget for adaptation responses identified in the context of cross-sectoral plans, or claiming resources from a horizontal fund for adaptation. Finally, at the monitoring and evaluation stage, interventions to incorporate adaptation consist of mobilising the necessary resources to strengthen monitoring and evaluation systems and capacities, and producing indicators to track performance against adaptation.

A number of priority actions are suggested:

- carry out an assessment of the available sector-specific information on climate change impacts and vulnerabilities;
- raise awareness among both sectoral planners and their counterparts within donor agencies of the implications of climate change on their specific areas of activity;
- in cases where sectoral regulations and other decision-making processes are based entirely on historical climate information, there might be a need to introduce greater flexibility – such as more frequent updating of the climatic baseline (e.g. in the case of water resource management);
- boost in-house capacity within sectoral ministries and donor agencies to better evaluate the implications of climate change for specific sectors;
- collect better information on the costs and benefits of adaptation actions so that decision makers at various levels can factor such information into their decision making on how to implement adaptation-related actions.

Through sector-level budget support and sector-wide approaches, donor agencies can support many of the above actions. They can help mobilise the additional resources required to integrate the needed adaptation measures in the context of sectoral strategies, plans and programmes. In addition, they can provide support for capacity development needed to apply climate lenses (including climate information gathering and monitoring at the sectoral level) and for the implementation of the different interventions associated with these. This implies supporting the development and application of sector-specific methodologies to identify, assess, cost and prioritise the needed climate adaptation measures and investments. Finally, donor agencies can encourage and support the monitoring and evaluation of progress towards integrating climate adaptation into sectoral strategies, plans and programmes. This includes providing financial and technical support for the implementation of reporting tools and indicators as well as performance assessment frameworks.

Project level

A development project may be directly or indirectly vulnerable to the impacts of climate change. At the same time, a project may increase or decrease the vulnerability of recipient communities or systems to climate change. The vulnerability of a project to climate risks is a function of the type of infrastructure it establishes, the activities it supports, and its geographical location. In addition, the expected lifetime of project activities is likely to be a critical factor determining the need to assess climate change

vulnerability. For example, investment in long lived infrastructure (such as a dam or irrigation network), should consider the effect of future climate conditions on the viability of the project, since climate change impacts will most likely become relevant during its planned useful life.

The project level is critical for the integration of adaptation considerations, and indeed much of the recent progress in this direction has been made at that level. The project cycle can be used as a framework to integrate the assessment of climate risks and the identification, analysis and prioritisation of adaptation options. In order to integrate adaptation at the project level, a number of interventions are identified along the project cycle; they include: incorporating considerations of climate risks and adaptation throughout the project cycle; developing, pilot testing and implementing climate risk assessments; developing appropriate metrics and indicators to assess the effectiveness of efforts to better integrate climate risks and adaptation considerations; and engaging a wide variety of stakeholders to identify adaptation options and indicators that monitor progress and success.

Several recommendations and key priorities for action are suggested at this level:

- increase emphasis on testing, comparing and reconciling the diverse tools for climate risk assessment;
- improve the availability and reliability of downscaled climate change projections and ensure that the uncertainties associated with various projections are communicated to project managers in transparent ways;
- increase analytical work on methodologies for prioritising and costing of adaptation measures;
- evaluate systematically the effects and effectiveness of implemented adaptation measures;
- invest more in capacity development and piloting of initiatives that can help project managers as well as other relevant decision makers to better understand the implications of climate change on their projects and to be better equipped to incorporate adaptation considerations within their decision frameworks.

Local level

The local level is important for mainstreaming climate change adaptation for three reasons. First, climate change impacts are manifested locally, affecting local livelihood activities, economic enterprises, health risks, etc. Second, vulnerability and adaptive capacity are determined by local conditions. Regional or national vulnerability indices often mask the dramatic variations in vulnerability at local levels. Third, adaptation activities are often best observed at the local level. Decisions about livelihood strategies and investments can represent real-life demonstrations of adaptation. These demonstrations allow for the monitoring and evaluation of how policies, programmes and projects are supporting adaptation. They also provide a basis for scaling up, revising and learning.

The process for integrating climate change adaptation into development policies and activities is broadly the same in urban and rural settings. In general, this involves linking two separate but related processes in order to achieve stated objectives: *i*) the process of

understanding climate risks and selecting adaptation options; and *ii*) the process of formulating and implementing development policies conducive to adaptation.

The successful integration of climate change adaptation into local development processes depends on a number of enabling conditions. In both urban and rural contexts, there needs to be broad and sustained engagement with and participation of local stakeholders, including local governments, communities, civil society and businesses. Local authorities need to adopt a collaborative approach where local actors are seen as legitimate decision-making agents. In addition, there needs to be greater awareness-raising and targeted messaging on climate change, as local actors need to know why they might have to take different decisions or call on different or additional resources in shaping their livelihoods. Awareness should be raised among a number of different local stakeholders, such as households, local organisations, opinion leaders and educators. Furthermore, appropriate information needs to be gathered and used to inform local-level adaptation decisions. Finally, responses to short-term climatic shocks and those called for by projected long-term climate change impacts need to be reconciled.

Four entry points are identified to facilitate the integration of climate change adaptation into local development planning processes: *(i)* consideration of the implications of climate change in development planning processes of local governments (village action plans and rural or district development plans, as well as city development plans or strategies); *(ii)* adjustment of local regulatory and service provision frameworks, to include provision of information based on likely local impacts of climate change; *(iii)* adjustment of local government accountability mechanisms; and *(iv)* engagement of private-sector and civil society organisations and processes, which can support adaptation at the local level by internalising and institutionalising climate risk management into their own decision-making processes and operations.

To facilitate the integration of adaptation at the local level, a number of priority actions to be taken at higher levels of government have been identified:

- Collect information on climate change adaptation and make it available. Obtaining this information will require a combination of drawing from the knowledge and experience at the local level and having access to information sources housed at higher levels.
- Provide human, financial and technical resources and services to support local adaptation.
- Provide social protection for the poorest and most vulnerable.
- Ensure a supportive policy and institutional framework. This means devising policy incentives for risk management behaviour, reviewing or revising policies that increase climate-related vulnerabilities, and strengthening the institutions needed to manage communication and decision-making processes. It can also mean introducing a greater measure of flexibility into the overall policy process, establishing provisions for increased bottom-up feedback, and more regular reviews.

Donors and international agencies can support the development of adaptive capacity within rural and urban settings in a number of ways. Depending on their policy priorities, mandates and capacities, different agencies may focus on one or several of the options provided. First, they could review sectoral priorities in light of climate change. In urban areas, this may mean drawing attention of partner governments to the urgent need to

increase funding for infrastructure, as the deficits in urban infrastructure provision and maintenance are serious constraints to adaptive capacity. In rural areas, this may mean a long-term increase in support for agriculture and rural development, as well as for sustainable land and water management. Second, they could explore different options for channelling funds and stakeholder engagement to build local adaptive capacity (*e.g.* by supporting municipal infrastructure funds). Third, they could support decentralisation processes that transfer authority to elected local governments. Support for decentralisation should be coupled with efforts to enhance local government capacity to take up the responsibilities afforded by decentralisation. Finally, donors could increase support to civil society organisations. Because these organisations interface most directly with communities, they represent a key constituent in local-level adaptation.