MAINSTREAMING ADAPTATION TO CLIMATE CHANGE INTO OFFICIAL DEVELOPMENT ASSISTANCE: INTEGRATION OF LONG-TERM CLIMATE CONCERNS AND SHORT-TERM DEVELOPMENT NEEDS

Åsa PERSSON* and Richard J.T. KLEIN**

Abstract.
One of the key responses to integrating long-term climate change concerns into short- and medium-term development policy decisions in vulnerable developing countries is to mainstream measures for adaptation and adaptive capacity into official development assistance (ODA). However, mainstreaming as a policy practice has been strongly contested in the broader climate and development debate. One reason is that theory development lags behind the practice of mainstreaming climate-change adaptation into ODA, resulting in confusion over objectives and stakes involved for different actors. Drawing on the literature on environmental policy integration, this chapter describes the horizontal, vertical and international dimensions of mainstreaming, and identifies the challenges associated with each dimension. It outlines four complementary approaches to mainstreaming: procedural, organisational, normative and reframing approaches. However, any practical approach to mainstreaming must address and resolve two underlying paradoxes: one concerning visibility and ownership of adaptation when it is mainstreamed; and one concerning mainstreaming as a micro-level programme and project design issue or as a macro-level funding issue. Further conceptual and empirical research should serve to support policymaking in the light of these paradoxes.

Key words: climate change, adaptation, mainstreaming, official development assistance, climate policy, development policy, environmental policy integration, theory development.

Corresponding author: Dr. Åsa Persson
Research Fellow, Policy & Institutions Programme, Stockholm Environment Institute, Kräftriket 2B, SE-106 91 Stockholm, Sweden. Tel: +46-8-6747504. Fax: +46-8-6747020. Email: asa.persson@sei.se.

**Dr. Richard J.T. Klein
Senior Research Fellow, Climate & Energy Programme, Stockholm Environment Institute, Kräftriket 2B, SE-106 91 Stockholm, Sweden. Tel: +46-8-6747054. Fax: +46-8-6747020. Email: richard.klein@sei.se.

1. Adaptation to Climate Change: A Development Imperative

As the challenge of climate change has become more evident to policy-makers, the problem of adopting longer-term perspectives in traditionally short- and medium-term political decisions has called for increased attention. Climate change is increasingly affecting the process and content of policies for international development and, largely as a result of stronger scientific evidence as to its causes and possible consequences, has reached an increasingly formative stage in international policy negotiations. It is now beyond any reasonable doubt that climate change is happening, that its predominant cause is the growing concentration of greenhouse gases in the atmosphere, and that these greenhouse gases stem primarily from human activities. The first effects of climate change are already being observed (Rosenzweig *et al.*, 2007), and further impacts are inevitable. Adaptation to these impacts will therefore be an unavoidable part of national and international policy responses to climate change, along with mitigation (*i.e.*, reducing greenhouse-gas emissions and enhancing sinks).

The *Stern Review on the Economics of Climate Change* estimates that if no action is taken to mitigate climate change, overall damage costs will be equivalent to losing at least 5% of global gross domestic product (GDP) each year, with higher losses in most developing countries (Stern, 2007). The World Bank (2006) concludes that the incremental costs to adapt to projected impacts of climate change in developing countries are likely to be of the order of USD 10–40 billion per year, whilst Oxfam International (2007) estimates this number to be over USD 50 billion per year. The UNFCCC (2007) reckons that by 2030 the annual costs of adaptation in developing countries will amount to USD 28–67 billion. The UNDP (2007) has the most pessimistic estimate to date: it suggests that aid financing requirements for adaptation could amount to USD 86 billion per year by 2015.

These numbers show that climate change is not only or even primarily an environmental challenge: for the largest part of the world it is, above anything else, a development challenge. The seminal report *Poverty and Climate Change: Reducing the Vulnerability of the Poor through Adaptation*, prepared by ten bilateral and multilateral donor organisations, concludes that climate change presents a challenge to meeting important development objectives, including the Millennium Development Goals (Sperling, 2003). It recommends that adaptation be designed so as to be consistent with development priorities and concludes that to consider climate change in development activities could add a long-term sustainability component to official development assistance (ODA). Klein (2001) identifies three ways in which adaptation to climate change is relevant to ODA: (*i*) the risk of climate change to the ODA activity and its deliverables (*e.g.*, water supply, food security); (*ii*) the vulnerability to climate change of the community or ecosystem that is the beneficiary of the ODA activity; and (*iii*) the possible effects of the ODA activity and its deliverables on the vulnerability of communities or ecosystems to climate change.

Integrating adaptation and mainstream ODA activities has thus emerged as a key response to the need for integrating long-term climate change concerns into short- and medium-term development policy decisions in vulnerable developing countries. Several donor agencies have initiated more systematic efforts to achieve such integration. However, this integration process, often referred to as *mainstreaming*, is still lacking a sound theoretical foundation on the basis of which it would be possible, for example, to evaluate or predict the success of mainstreaming efforts and to identify challenges that need to be met when moving from planning to implementation. This chapter outlines the contours of what should become a theoretical foundation for mainstreaming adaptation into development. It draws on theory and lessons from the wider field of integration of environmental objectives and concerns into sector policies (*e.g*., energy policy, agricultural policy), a field usually referred to as environmental policy integration (EPI).

EPI is identified as a cornerstone of sustainable development in the book *Our Common Future* (WCED, 1987) and in Agenda 21 of the United Nations Conference on Environment and Development (Rio de Janeiro, Brazil, 1992). A body of EPI literature has emerged in recent years, in particular in Europe (*e.g.*, Lenschow, 2002; Nilsson and Persson, 2003; EEA, 2005; Nilsson and Eckerberg, 2007; Jordan and Lenschow, 2008). Palerm *et al.* (2007) and Williams (2007) discuss EPI in the context of European ODA.

2.   Mainstreaming Adaptation into Development: The Essentials

The need to ensure consistency between adaptation and development priorities (Sperling, 2003) presents a strong case for (*i*) incorporating development concerns into climate policy and (*ii*) incorporating climate concerns into development policy. The participation of developing countries in the United Nations Framework Convention on Climate Change (UNFCCC) should take care of the former requirement: it ensures that development concerns are discussed in international negotiations and incorporated into climate policy. The incorporation of climate concerns into development policy can be set about by mainstreaming them into ODA. "Mainstreaming" here refers to the integration of policies and measures that address climate change into development planning and sectoral decision-making. The benefit of mainstreaming would be to ensure the long-term sustainability of investments as well as to reduce the sensitivity of development outcomes to both today's and tomorrow's climate (Huq *et al.*, 2003; Agrawala, 2005; Klein *et al.*, 2005; Eriksen *et al.*, 2007). It is also seen as a way of making more efficient and effective use of financial and human resources than designing, implementing and managing climate policy separately and "stand-alone" from ongoing development efforts.

By its very nature, energy-based mitigation (*e.g.*, fuel switching and energy conservation) can be effective only when mainstreamed into energy policy. For adaptation, however, the motivation for mainstreaming has not appeared as self-evident until recently. In April 2006 the OECD organised a ministerial-level meeting of its Development Assistance Committee and its Environment Policy Committee. The meeting served to launch a process to work in partnership with developing countries to integrate environmental factors efficiently into national development policies and poverty reduction strategies. The outcomes of the meeting were an agreed *Framework for Common Action Around Shared Goals*, as well as a *Declaration on Integrating Climate Change Adaptation into Development Co-operation*. These outcomes are evidence of the importance that is now being attached to mainstreaming adaptation into ODA activities.

The policy impetus for integrating adaptation into ODA has thus quickly grown strong and persuasive, resulting in several initiatives to introduce new procedures and practical guidance in bilateral and multilateral donor agencies. However, recent stock-takings of progress on mainstreaming show that various institutional and cognitive barriers remain (Tearfund, 2006; Gigli and Agrawala, 2007). Furthermore, some concern has been voiced about the very notion of mainstreaming. First, there is concern that scarce funds for adaptation to climate change in developing countries could be diverted into more general development activities, which would offer little opportunity to evaluate, at least quantitatively, their benefits with respect to climate change (Yamin, 2005). Second, there is the opposing concern that an increased focus on climate risks would divert money from ODA that is meant to address challenges seen as being more urgent than climate change, including water and food supply, sanitation, education and health care (Michaelowa and Michaelowa, 2007). These concerns underline the importance of financial transparency in mainstreaming so as to avoid a third concern, namely that developed countries could view mainstreaming as an opportunity to absolve them from the UNFCCC

requirement to provide developing countries with new and additional financial resources for adaptation.

3. Mainstreaming Adaptation through the Lens of Environmental Policy Integration

In spite of the aforementioned definitions and descriptions, "mainstreaming" is a term with different connotations for different actors, which is also the case for EPI (Persson, 2007). Mainstreaming can be seen as being primarily an administrative or technical concern, in that the design of programmes and projects should incorporate aspects that promote their sustainability at an early stage. Mainstreaming can also be seen as being primarily a political concern, in that it adds a new high-level political objective for ODA and, in so doing, can affect decisions on the allocation of funds. A conceptual unpacking of adaptation and mainstreaming may help to understand these different views.

3.1. ADAPTATION UNPACKED

"Adaptation" may be understood as a concept or process from a scientific point of view but is more difficult to accommodate and integrate as an issue in a policymaking system. First, there has been debate as to whether or not it is meaningful in practice to distinguish between adaptation to climate change and adaptation to climate variability, and hence whether or not adaptation to climate change should be seen as "incremental" (Burton and Van Aalst, 2004). Adaptation to climate change may imply a "burden-of-proof" aspect and criteria that policymakers would need to consider. Second, much adaptation takes place on private initiative, but there is also a need for policy-driven and publicly delivered adaptation (Stern, 2007; Adger *et al.*, 2007) Adaptation thus has both a public and a private dimension.

Third, one can distinguish between taking *adaptation measures* and building *adaptive capacity*. Examples of adaptation measures range from constructing seawalls to modifying building codes in coastal zones, from increasing reservoir capacity to adjusting water prices in the water sector, and from research on crop varieties to changing farm practices in the agricultural sector. The extent to which such measures can be adopted successfully depends on the adaptive capacity of the community, sector, industry or household in question. Adaptive capacity has been defined as "the ability of a system to adjust to climate change (including climate variability and extremes) to moderate potential damages, to take advantage of opportunities, or to cope with the consequences" (IPCC, 2007). Adaptive capacity is often limited by a lack of resources, poor institutions and inadequate infrastructure, amongst other factors that are typically the focus of ODA (Smith *et al.*, 2003).

McGray *et al.* (2007) suggest that it may be useful to view adaptation along a continuum from discrete adaptation measures to building of adaptive capacity; yet the fact remains that policy-driven adaptation involves very different activities and is thus a rather imprecise term for operational policy use. Moreover, adaptation is not a discrete, delimited and easily measurable "issue" but rather refers to taking a certain "perspective" of adopting longer timescales and increasing awareness of climate risks in policymaking and planning (in this case ODA policies, programmes and projects). The question then is how well suited the policymaking system is to integrating and mainstreaming a broad perspective, as opposed to a discrete and measurable issue. On the one hand it could be argued that adaptation is more amenable to mainstreaming than, for example, mitigation since it does not call for a specific action (such as reducing greenhouse-gas emissions). Instead, adaptation is the result of a very diverse set of actions that are in turn stimulated by policy influences originating from many different sectors. It would

thus make sense to address the mainstreaming of adaptation in a broad-based way. On the other hand, because adaptation as a term covers such a broad spectrum, it is unclear precisely what to mainstream into which kinds of policies, unless there are sector-specific interpretations and definitions of measures.

3.2. MAINSTREAMING UNPACKED

Policy integration can serve two purposes: (*i*) to remove contradictions between sector and environmental policy objectives and hence ensure compatibility and consistency, and (*ii*) to realise mutual benefits and synergies (Collier, 1994). The latter represents a win-win situation that would engender little opposition. The former can also be "common-sense" but its acceptance depends on the cost at which it can be achieved. If costs are involved, policy integration requires the weighting of policy objectives and the analysis of trade-offs (*i.e.*, win-lose situations), which appear to have been less systematically addressed in the context of mainstreaming adaptation than in the EPI literature. According to Liberatore (1997), "the concept of integration assumes a form of reciprocity" so as to avoid a situation of "dilution" rather than integration. Lafferty and Hovden (2003) go one step further and argue that environmental objectives must be given "principled priority" over economic sector policy objectives in order to qualify as true integration with a view to sustainable development.

Applying this reasoning to the mainstreaming of adaptation into ODA reveals some important differences. First, recognising that building adaptive capacity can be similar to poverty and vulnerability reduction (see above), there need not be trade-offs with mainstream development activities supported by ODA. Indeed, adaptation in a development context is increasingly referred to as "climate-resilient development". In practice, however, prioritising between immediate development needs and longer-term adaptation needs in a situation of limited resources can result in inevitable trade-offs (Michaelowa and Michaelowa, 2007). Another difference is that there are no absolute and quantitative targets or benchmarks specifying "how much" adaptation is required (*cf.* mitigation). The "required" level of adaptation is determined relative to the risk of climate change and variability in a given time and space, which is difficult to establish. This makes it difficult to assess whether or not there is sufficient reciprocity, or in fact dilution or side-lining.

Considering that the weighting issue and dilution argument are to a large extent theoretical, they still highlight the different levels of ambition with which mainstreaming can be pursued. In the mainstreaming literature and guidance, additional terms to mainstreaming are used: integration, coordination, embedding, aligning, climate-proofing and becoming climate smart. Climate-proofing possibly represents a lower level of ambition than mainstreaming and integration, in that the proposed mainstream development activities are taken as given and modified according to adaptation needs. In more proactive integration, adaptation could constitute a more guiding objective. However, to make such distinctions risks leading to a purely semantic debate. It is the actual use and quality of the integration activities, whether labelled "climate-proofing", "mainstreaming" or something else, that determine whether the outcome is integrated or diluted in each particular case. Consequently, we make no distinction between these terms hereinafter.

4. Three Dimensions of Mainstreaming

Conceptually unpacking the idea of mainstreaming adaptation suggests that it is more complex than environmental integration more broadly, due to the nature of adaptation as a goal.

However, complexity at the cognitive level, in terms of grasping what adaptation mainstreaming really entails, should not be confused with complexity at the practical level. In order to further the understanding of mainstreaming of adaptation and how it is different from other kinds of (environmental) policy integration we propose that there are three dimensions to it.

First, the *horizontal dimension* is common to all policy integration and mainstreaming activities involving issues currently placed within different policy sectors or departments, regardless of the theme of the issue and whether it concerns domestic or foreign policy. Indeed, EPI is sometimes referred to as horizontal integration or coordination (Peters, 1998). In essence, departments and staff responsible for different sectors (*e.g*., health, agriculture, infrastructure) need to communicate with departments and staff responsible for the issue to be integrated (*e.g*., adaptation, gender, human rights) and develop compatible or even synergistic policy objectives and instruments. For domestic policy, horizontal integration takes place across the whole government. For foreign and ODA policy, the ministry for foreign affairs and ODA agency can be seen as a microcosm of different policy sectors. When the ODA budget is distributed as country envelopes, the negotiation between different sector objectives and mainstreaming themes then occurs within the specific country department and embassy.

Second, there is a more pronounced *vertical dimension* to policy integration and mainstreaming in ODA than in domestic policy. In domestic policy there are hierarchical administrative levels that supposedly correspond to the different stages of policymaking: formulation of objectives and strategies, design of instruments, and implementation and enforcement of instruments. In ODA, however, these different tasks are arguably more concentrated within and controlled by the donor agency, and the policy implementation chain sometimes also reaches a lower level or later stage, namely concrete project design, implementation and management. In ODA, these levels or stages are commonly described as national policy for ODA, country strategy (influenced by partner country Poverty Reduction Strategy Paper, PRSP, and other national plans), budget support, sector programmes, and projects (sometimes designed and implemented by NGOs and other third parties). These levels have been outlined in Figure 1, and we propose a macro-, meso-, and micro-level terminology to distinguish between them.

Relevant questions in vertical policy integration are: how well does policy implementation down to the project level work and, in particular, to what extent are the original intentions of mainstreamed adaptation preserved throughout this chain? A key issue here is the possible existence of "implementation deficits", meaning that objectives or priorities expressed in higher-level strategies are not translated into concrete programme and project activities for supporting adaptation measures or building adaptation capacity (Urwin and Jordan, 2008).

Another key issue is whether or not adaptation mainstreaming is best pursued from the top-down, as is implicitly suggested by the existence and development of mainstreaming tools and guidance. A counter to the top-down argument is the current advocacy for greater emphasis on community-based adaptation (*e.g.*, Alam and Mqadi, 2006; Huq and Reid, 2007). With reference to general policy-coordination theory, Peters (1998) distinguishes between policy coordination and administrative coordination. The former type rests on the assumption that it is more effective to coordinate from the very start, in a top-down manner, and that clear overarching priority-setting is more important than implementation concerns at the policy-formulation stage. The latter represents a bottom-up orientation towards making government-policy outputs more coherent and easily absorbed for the target group, and thus reflects an implementation perspective. Which combination of these is more effective depends partly on the importance of creating a sense of ownership of issues and policies by departments and staff. This in turn is related to the predominant governance mode within an organisation. Imposition of mainstreaming directives would be most effective in a hierarchical organisation, while bot-
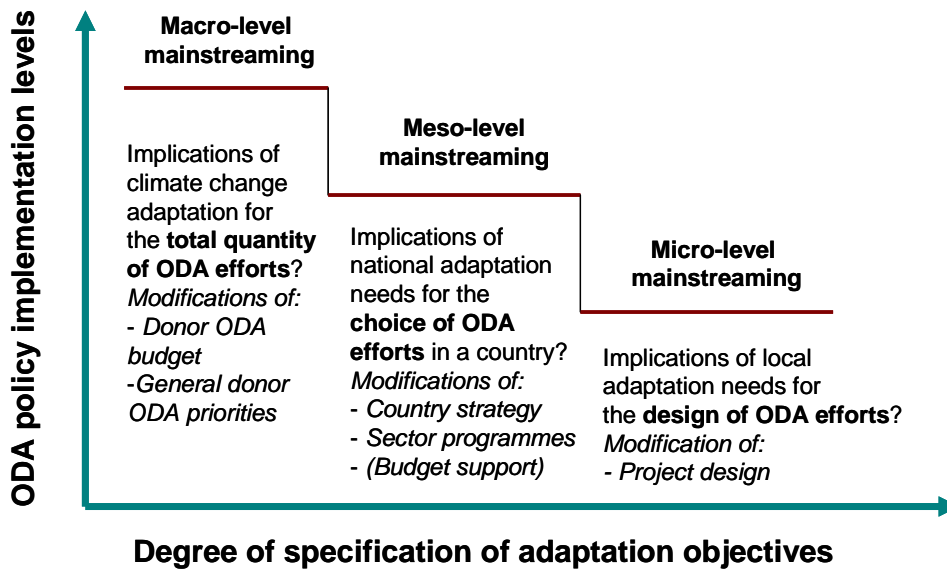
Figure 1. Different levels and interpretations of mainstreaming (after Kartha *et al.*, 2006).

tom-up bargaining around mainstreaming issues would be the natural option in organisations with market- and network-governance modes (Schout and Jordan, 2008).

The third dimension of mainstreaming adaptation into ODA is the *international dimension*, embodied as the relationship between the donor country and the partner country. The above description of ODA policy-implementation levels and stages was deliberately simplified to illustrate potential challenges *within* a donor organisation or a jurisdiction. In accordance with the 2003 *Rome Declaration on Harmonization* and the 2005 *Paris Declaration on Aid Effectiveness*, partnership and country ownership are guiding principles for development cooperation, so agreement on adaptation mainstreaming is naturally needed *between* organisations and jurisdictions. This raises the question of how to share responsibility for mainstreaming and how to carry it out in practice.

5.   Challenges for Achieving Mainstreaming

Having clarified the mainstreaming of adaptation conceptually, the next question is how to achieve it. In what ways would the process of making foreign policy and designing ODA need to change? In the EPI literature, the tools and approaches available for integration have been grouped into four broad and interlinked categories: *procedural*, *organisational*, *normative* and *reframing* approaches (Persson, 2007). Each of these is associated with its own sets of challenges that need to be overcome. An added challenge in the ODA context is the international dimension, especially if characterised by diverging views on the desirability and necessity of climate adaptation by the donor and recipient. Below, however, we will focus primarily on mainstreaming approaches and challenges within donor organisations. Depending on the particular organisational culture (*e.g.*, legalistic, discretionary; see Peters, 2001) and overarching national policy style (*e.g.*, anticipatory or reactive, open or closed towards external actors; see Richardson *et al.*, 1982) that characterise the donor agency, these different kinds of approaches to integration will be more or less suitable and challenges more or less severe.

5.1. THE PROCEDURAL APPROACH

The most immediate step often taken in policy integration is to introduce new or modify existing decision-making *procedures*, not least in terms of the information feeding into the decision. For EPI, common procedural tools include *ex ante* environmental assessments of programmes and projects (*e.g.*, strategic environmental assessment, SEA; environmental impact assessment, EIA), "green budgeting", checklists, sector environmental reporting systems, internal or external audit functions, as well as improved consultation with and participation of environmental experts and stakeholders (EEA, 2005; Persson, 2007). Provided they are actually used, these tools create opportunities for integration and mainstreaming, but they do not guarantee that substance will follow from procedure (Lenschow, 2002). Importantly, they are often intended to operate within a more or less given organisational structure, knowledge context, and set of political priorities.

There are several examples of the procedural approach and associated tools developed for mainstreaming adaptation into ODA. An initial step by several agencies has been to undertake portfolio screenings to determine what share and what kind of ODA activities are exposed to the risk of climate change. In a review of such efforts, Klein *et al*. (2007) find that the quality of screening to date is varied, but also that they have served different purposes: from searching for linkages in a more qualitative way to identifying risks in more quantitative ways and proposing future activities.

Building on this "risk management" understanding of mainstreaming and also recognising the need to build adaptive capacity proactively through mainstream development activities, several donor agencies are currently developing procedural guidance and tools. These include both the identification of "entry points" for mainstreaming in donor and partner country policy and project cycles (*e.g.*, PRSP consultations, country strategies, sector programmes, project design) and general and sector-specific checklists for specific adaptation issues and options (Eriksen *et al.*, 2007; Gigli and Agrawala, 2007). These guidance and tools generally propose a methodology for analysing the climate risk posed to a programme or project, identifying adaptation options and assessing the options according to certain criteria (*e.g.*, cost-benefit analysis and multi-criteria analysis). Specific examples of guidance and tools include the Danida's action programme for climate-proofing Danish development cooperation, USAID's six-step adaptation guidance manual, ADB's risk-based approach to adaptation and climate-proofing, UNDP's adaptation policy framework, the CRiSTAL software tool for community-based risk screening, the World Bank web-based ADAPT planning tool, and UK DfID's ORCHID process. A process for cross-fertilisation and exchange between such tools is being organised under the auspices of the Development Assistance Committee of the OECD.

National Adaptation Programmes of Action (NAPAs) are a country-driven opportunity under the UNFCCC to provide input into the ODA process. In the NAPAs, the least-developed countries identify and prioritise immediate adaptation needs and can thus inform mainstreaming efforts, especially when a more programmatic approach to mainstreaming is preferred. However, the quality of NAPAs has so far been variable and follow-up is uncertain (Jallow and Downing, 2007).

Many of these procedural tools have only recently been introduced or significantly strengthened so it is still premature to assess their success and comparative effectiveness. Recent analyses of how climate adaptation has been referred to in ODA strategy and project documents, however, suggests that it either has been absent or referred to in very general terms without a discussion of implications and operational recommendations (Klein *et al.*, 2007; Gigli and Agrawala, 2007). A range of contextual problems have been identified as preventing the effective application of various procedural tools: a lack of awareness of climate change among

development practitioners, limited resources for the implementation of tools, limited relevance of available climate information on the temporal and spatial scales of development activities, and the uncertainty of climate information (Agrawala and Van Aalst, 2005; Tearfund, 2006). Importantly, there is also a lack of more specific guidance on which adaptation options are relevant for specific development activities as opposed to general guidance (*ibid.*).

An underlying problem for determining the success of new procedures for mainstreaming and whether or not substance follows from procedure are the inherent conceptual and methodological difficulties involved in measuring success. Difficulties relate to measuring (*i*) the activity of mainstreaming (*i.e.*, capturing the improvement of an integrated policy or project compared to a baseline or counterfactual case), and (*ii*) the outcome (*i.e.*, measuring the complex and multidimensional phenomena of adaptation and adaptive capacity). The priority of addressing the latter challenge has led to initiatives for defining more policy-relevant national targets for adaptation and adaptive capacity (Tellam, 2007), as well as proposals for indicators of adaptive capacity, results-oriented adaptation actions, and process-oriented adaptation actions (Levina, 2007).

5.2. The organisational approach

Some of the problems related to introducing or modifying procedures suggest that the *organisational structure and context* is equally, or even more, important to address. A wide range of organisational changes have been proposed in the EPI literature to enhance mainstreaming and integration. These changes range from the level of the individual desk officer to the organisation at large, such as staff training and awareness programmes; amendments of formal staff and departmental responsibilities and mandates (*i.e.*, job descriptions and agency instructions); placement of environmental correspondents in sector ministries; staff rotation and network initiatives; merging of environmental and sector ministries; creation of new ministries; and structural changes of budget lines (Peters, 1998; OECD, 2002; Schout and Jordan, 2008). The purpose of organisational changes is not only to ensure that the right expertise and competence is in the right place, but also to induce ownership and internalisation of the environmental issues at hand and to encourage more profound and permanent changes in the routine decision-making processes.

In the field of mainstreaming adaptation there appears to be less emphasis on organisational than on procedural changes, although general expertise on climate change and on mitigation and adaptation is currently being expanded in some agencies. An initial step of awareness-raising and training has been taken by a large majority of bilateral agencies, as well as the multilateral agencies, in the form of information material, seminars and short training courses on adaptation, but not always with a clear link to mainstream development and ODA (Gigli and Agrawala, 2007).

A common problem with organisational changes is that they simply take time to "stick" due to institutional inertia, whereas changes in procedures can be implemented more quickly. However, the main underlying problem identified in the EPI literature is sectoral compartmentalisation. Any organisational restructuring initiative risks encountering the common phenomenon of "turf mentalities" and competitive behaviour that have evolved among sector departments (a natural consequence of a specialised Weberian bureaucracy). This can have cultural motives, reflecting different professional backgrounds and perspectives of bureaucrats (Peters, 2001), and self-interest motives, reflecting budget competition and budget-maximising behaviour (Majone, 1996). Traditionally, within many national governments, environment ministries have been less powerful than, for example, the ministries of finance, industry and infrastructure in such competition.

The sectoral compartmentalisation problem also applies to the mainstreaming of adaptation into ODA. Climate specialists have so far had limited influence on operational decisions taken by country departments with a "mainstream" development focus (Gigli and Agrawala, 2007). The coordination challenge is amplified when organisational units responsible for disaster risk reduction are also considered, although this is a closely linked theme that is integral to effective adaptation strategies (Schipper and Pelling, 2006). In the absence of real transfers of responsibility and formal mandates for adaptation to climate change to ODA country departments (and to ministries of finance and planning in partner countries), there is thus a risk of limited progress and unresolved conflicts as outcomes from sector competition, and hence dilution of the adaptation objective. To avoid dilution and a lack of clear accountability for adaptation, it has been proposed that a politically powerful multi-stakeholder committee attached to a high-ranking office of government is required, as a control and audit function (Tearfund, 2006).

Considering that changes in organisational structure are rare, an oft-cited problem in the context of ODA is "mainstreaming fatigue", which arises due to the number of perspectives and issues to be mainstreamed (*e.g*., adaptation, gender, human rights) and the limited resources of the project or programme and for the preparation phase. An obvious solution would be to create a separate budget line for adaptation, to be allocated to country budget envelopes. While this would increase incentives for identifying and designing relevant programmes and projects, it runs counter to the very idea of adaptation as something integral to existing sector activities rather than as "something else". Other suggested ways of tackling mainstreaming fatigue and creating positive staff incentives with regards to adaptation include the development of career development incentives related to climate-change training programmes, making the economic case for adaptation benefits more clearly, and the application of mainstreaming tools within risk assessment and management techniques that are already in use and embedded in the organisation (Tearfund, 2006).

A final aspect of the organisational decision-making context in donor agencies is its fit with prevailing management systems that, following the *Paris Declaration on Aid Effectiveness*, tend to be results-based. Such systems can introduce a bias towards including primarily measurable objectives and concerns in ODA country strategies, programmes and projects. So far, it has been difficult to find relevant, short- to mid-term and practically feasible indicators of adaptation measures.

5.3. THE NORMATIVE APPROACH

As pointed out by Jordan (2002), while context-sensitive procedural and organisational changes can provide the necessary software and hardware for policy integration, there is a need for clearly communicated political will to provide the "electricity" for the system. By a *normative* approach we thus mean high-level (parliamentary and cabinet) commitments to the issue to be integrated, which in turn can be formalised and elaborated in strategies and policy frameworks and materially manifested in net additions of resources. In several studies of EPI in Europe it has been found that a strong normative commitment to the issue to be integrated, whether driven by ideology, public opinion or media attention, is a necessary condition for and operates in a dialectical fashion with procedural and organisational tools (Jordan and Lenschow, 2008). While normative commitment can cause an increased use of tools (reflected in frequency and quality of use), such tools can simultaneously lead to the institutionalisation of an issue in a volatile and ephemeral political landscape.

Many donor governments and agencies have recently adopted climate change mitigation and adaptation objectives in their ODA policies and there has also been high-level policy

endorsement at the international level (*e.g.*, the aforementioned 2006 OECD Declaration, the 2004 EU *Action Plan for Climate Change in Development Cooperation*, the 2005 G8 *Gleneagles Plan of Action*, and the 2006 multi-agency *Clean Energy and Development Investment Framework* led by the World Bank,). Examples at the national donor policy level are fewer, however. Agencies in the UK, Denmark and Sweden have so far been identified as more advanced in this regard (Gigli and Agrawala, 2007). In the OECD donor survey on mainstreaming (*ibid.*), about half of the respondents included climate change topics in their regular, high-level policy dialogues with partner countries. As for the interdependence between high-level policy endorsement and lower-level awareness and championing of the adaptation perspective, it remains to be seen whether these relatively recent commitments and endorsements will have a lasting effect upon tool use and awareness or whether there will be a risk of implementation deficit.

Regardless of whether it should be seen as a problem or an inevitability, policy frameworks developed at the high level rarely address or give clear guidance for concrete trade-offs and prioritisations that need to be made at the project design and implementation level. According to Majone (1989), uncomfortable explicit decisions are often deliberately pushed down in the government hierarchy. Agrawala and Van Aalst (2005) indeed find that there has been an underlying perception of real trade-offs between adaptation and other development priorities in some cases.

Finally, an aspect of normative commitment to mainstreaming adaptation relevant in an ODA context is that of dissonance and credibility of domestic action by the donor. For EU development assistance in particular, Yamin (2005) argues that "advocating developing countries' mainstream climate adaptation will require, in turn, that the EU needs to pursue policy integration within the EU to ensure that environmental considerations … are integrated into other policy areas – a process which is currently at an early stage in the EU."

5.4. THE REFRAMING APPROACH

So far, the prospects for successful mainstreaming may appear rather bleak and challenges insurmountable. However, adaptation as an issue for mainstreaming has only recently been strongly raised and the timeframe for observing progress is relatively short. A complementary approach for understanding mainstreaming to those outlined above is one that focuses on *reframing* of traditional sector activities over the mid- and long-term (Lenschow and Zito, 1998; Nilsson, 2005). Policy frames are "ways of selecting, organising, interpreting and making sense of a complex reality to provide guideposts for knowing, analysing, persuading and acting" (Schön and Rein, 1994).

The reframing approach is not an operational approach but rather one that helps to improve the understanding of the long-term outcome of and conditions for successful mainstreaming. The key question is how the rationale of an economic sector is perceived, and what it implies in terms of appropriate policy objectives and instruments. For example, is the role of energy policy mainly to supply cheap energy in a self-sufficient way, or to facilitate a transition to a low-risk, resource-efficient society? A particular framing, as understood here, is not a top-down output of politicians (*i.e.*, a high-level normative commitment) but a collectively developed mutual perception of the function and objectives of a sector within a community of stakeholders. Several framings can co-exist and conflict, but the currently dominant one will critically influence policy.

As described above, there is currently an intense framing activity in relation to adaptation as a phenomenon *per se*, how it can be policy-driven, and what should be its relationship with mainstream development (*e.g.*, McGray *et al.*, 2007). In parallel, dominant paradigms of

"mainstream development" are also constantly being questioned. As adaptation and adaptive capacity are becoming increasingly framed in clear and coherent ways, we should also expect increasing reframing of traditional sector policies and what they involve, that is, towards "adaptive" health policy or "adaptive" land-use policy.

Viewing mainstreaming as a reframing phenomenon is thus necessarily a less prescriptive and tools-oriented approach. Finding the "right" frame is a matter of conceptual and ideological debate. However, ways of stimulating a reframing process have been identified. Research, training and socialisation among policymakers can lead to new framings in the medium- and long-term (Underdal, 1980). Likewise, deliberately employing bureaucrats from different professional backgrounds and cultures can provide new perspectives over a longer term. The ultimate materialisation of new frames may be the labelling of policy fields and the organisation of sectors within government.

6.   Concluding Remarks: Paradoxes of Mainstreaming

In this chapter we have aimed to clarify what is meant by mainstreaming of adaptation in ODA and identify some challenges that will have to be overcome in order to ensure its effectiveness, and to enable more long-term time perspectives in ODA policy and project preparation. Considering the many actual and potential difficulties pointed out, is it worthwhile to pursue adaptation and building adaptive capacity through a strategy of mainstreaming sector ODA? While policy integration is often seen as a no-regrets strategy associated with practical rather than inherent difficulties, Weale (2005) argues that the limited attention spans of policymakers and structural lack of leverage of environmental issues call for more specialised (hence, less integrated) policies. We still propose that an integration strategy is necessary due to the cross-sectoral nature of adaptation and adaptive capacity. However, considering the risk of dilution and diffusion of accountability as a consequence of mainstreaming, politically powerful and robust systems for quality control and audit of mainstreaming progress will be important.

We also propose that it is necessary to articulate and address more clearly two interrelated paradoxes that are inherent to mainstreaming, in order to eliminate the confusion around what mainstreaming really means in different settings and to different people. First, there is a paradox of visibility and ownership of the issue or perspective to be integrated, here adaptation. The purpose of integration or mainstreaming is that the issue should become generalised and internalised across sector departments and decentralised in terms of ownership. This can lead to increasing invisibility, as targets and measures taken may not necessarily be labelled as adaptation. At the same time, the original rationale for introducing mainstreaming requirements in relation to an issue is that its significance and visibility need to be raised and that it deserves specific attention, high priority and specialised knowledge. There is thus a certain tension between the concentrated ownership of champions who put an issue on the agenda and the decentralised ownership that results from successful mainstreaming. This tension may naturally disappear over time, but can cause confusion in early phases.

A second and related paradox refers to the material manifestation of shifting political priorities within sectors towards the issue subject to mainstreaming, namely funding and budgeting. As alluded to in the introductory parts of this chapter, there is an understanding of mainstreaming as an ODA (and country-driven) planning and project-design choice, that is, either to conduct mainstream ODA or to conduct ODA that is climate-proof and builds adaptive capacity. Simultaneously, there is an understanding of mainstreaming mainly as a funding choice, that is, either to fund specific adaptation projects through separate instruments, based on new and additional funds, or to mainstream adaptation measures within the existing ODA

budget or within an enlarged ODA budget. We proposed the macro-, meso-, and micro-level terminology in Figure 1 as a way of overcoming such confusion. It helps to distinguish between "high-politics" funding issues and more "low-politics" administrative processes, as well as between various levels or stages of the ODA planning process.

Although there is a lack of evidence of the effectiveness and efficiency of mainstreaming efforts, some policy and research implications of the discussion so far can be highlighted. First, there has been a tendency first to study the development and use of specific tools for integration in both the EPI and mainstreaming of adaptation literature. Equally important is to gain a sound understanding of the context into which they are implemented: the organisational structure, incentive structure, knowledge support and political priorities. Second, existing guidance on mainstreaming seems to emphasise the formal structure and hierarchy of development plans, programmes and projects, and hence identify entry points for mainstreaming and the application of tools. However, this assumes that mainstreaming introduced as a top-down process will have effects at lower levels. The issue of implementation deficits and bottom-up approaches to mainstreaming have been less studied. Third, since adaptation is a relatively abstract concept with a diverse set of meanings in different sectors, it seems fruitful to focus on sector-specific mainstreaming efforts rather than initiatives applying across the board to all kinds of ODA. Finally, it appears that most mainstreaming guidance and tools have focused on the project level, whereas there is a trend in ODA towards an increased use of budget support and sector programmes. There is a need to understand better how mainstreaming can be achieved for such instruments.

Acknowledgements

References

Adger, W.N., S. Agrawala, M.M.Q. Mirza, C. Conde, K. O'Brien, J. Pulhin, R. Pulwarty, B. Smit and K. Takahashi, 2007: Assessment of adaptation practices, options, constraints and capacity. *Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, M.L. Parry, O.F. Canziani, J.P. Palutikof, P.J. van der Linden and C.E. Hanson (eds.), Cambridge University Press, Cambridge, UK, 717–743.

Agrawala, S. (ed.), 2005: *Bridge over Troubled Waters: Linking Climate Change and Development.* Organisation for Economic Co-operation and Development, Paris, France, 153 pp.

Agrawala, S. and M. van Aalst, 2005: Bridging the gap between climate change and development. *Bridge over Troubled Waters—Linking Climate Change and Development,* S. Agrawala (ed.), Organisation for Economic Co-operation and Development, Paris, France, 133–146.

Alam, M. and L. Mqadi, 2006: Designing adaptation projects. *Tiempo*, **60**, 21–24.

Burton, I. and M. van Aalst, 2004: *Look Before You Leap: A Risk Management Approach for Incorporating Climate Change Adaptation in World Bank Operations.* World Bank, Washington, DC, USA, 55 pp.

Collier, U., 1994: *Energy and Environment in the European Union: The Challenge of Integration.* Avebury, Aldershot, UK, xii+273 pp.

Drexhage, J., D. Murphy, O. Brown, A. Cosbey, P. Dickey, J.-E. Parry, J. van Ham, R. Tarasofsky and B. Darkin, 2007: *Climate Change and Foreign Policy: An Exploration of Options for Greater Integration.* International Institute for Sustainable Development, Winnipeg, Canada, 52 pp.

EEA, 2005: *Environmental Policy Integration in Europe: State of Play and an Evaluation framework.* European Environment Agency, Copenhagen, Denmark, 68 pp.

Eriksen, S.E.H., R.J.T. Klein, K. Ulsrud, L.O. Næss and K.L. O'Brien, 2007: *Climate Change Adaptation and Poverty Reduction: Key Interactions and Critical Measures.* GECHS Report 2007:1, University of Oslo, Norway, 42 pp.

Gigli, S. and S. Agrawala, 2007: *Stocktaking of Progress on Integrating Adaptation to Climate Change into Development Co-operation Activities.* Organisation for Economic Co-operation and Development, Paris, 83 pp.

Huq, S., A. Rahman, M. Konate, Y. Sokona and H. Reid, 2003: *Mainstreaming Adaptation to Climate Change in Least Developed Countries (LDCs).* International Institute for Environment and Development, London, UK, 40 pp.

Huq, S. and H. Reid, 2007: *Community-Based Adaptation: A Vital Approach to the Threat Climate Change Poses to the Poor.* IIED Briefing, International Institute for Environment and Development, London, UK, 2 pp.

IPCC, 2007: Appendix I: Glossary. *Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, M.L. Parry, O.F. Canziani, J.P. Palutikof, P.J. van der Linden and C.E. Hanson (eds.), Cambridge University Press, Cambridge, UK, 869–883.

Jallow, B.P. and T.E. Downing, 2007: NAPAs: priorities to policies. *Tiempo*, **65**, 14–18.

Jordan, A., 2002: Efficient hardware and light green software: environmental policy integration in the UK. *Environmental Policy Integration: Greening Sectoral Policies in Europe*. A. Lenschow (ed.), Earthscan, London, UK, 35–56.

Jordan, A. and A. Lenschow (eds.), 2008: *Innovation in Environmental Policy Integration.* Edward Elgar, Cheltenham, UK, in press.

Kartha, S., P. Bhandari, L. van Schaik, D. Cornland and B. Kjellén, 2006: *Adaptation as a Strategic Issue in the Climate Negotiations.* European Climate Platform Report 3, Centre for European Policy Studies, Brussels, Belgium, iii+29 pp.

Klein, R.J.T, 2001: *Adaptation to Climate Change in German Official Development Assistance: An Inventory of Activities and Opportunities, with a Special Focus on Africa.* Deutsche Gesellschaft für Technische Zusammenarbeit, Eschborn, Germany, 42 pp.

Klein, R.J.T., S.E.H. Eriksen, L.O. Næss, A. Hammill, C. Robledo, K.L. O'Brien and T.M. Tanner, 2007: Portfolio screening to support the mainstreaming of adaptation to climate change into development assistance. *Climatic Change*, **84(1)**, 23–44. doi:10.1007/s10584-007-9268-x.

Klein, R.J.T., E.L.F. Schipper and S. Dessai, 2005: Integrating mitigation and adaptation into climate and development policy: three research questions. *Environmental Science and Policy*, **8(6)**, 579–588. doi:10.1016/j.envsci.2005.06.010.

Lafferty, W. and E. Hovden, 2003: Environmental policy integration: towards an analytical framework. *Environmental Politics,* **12(3)**, 1–22. doi:10.1080/09644010412331308254.

Lenschow, A. (ed.), 2002: *Environmental Policy Integration: Greening Sectoral Policies in Europe.* Earthscan, London, UK, xiv+241 pp.

Lenschow, A. and A. Zito, 1998: Blurring or shifting of policy frames? Institutionalization of the economic-environmental policy linkage in the European Community. *Governance,* **11(4)**, 415–442.   doi: 10.1111/0952-1895.00080.

Levina, E., 2007: *Adaptation to Climate Change: International Agreements for Local Needs.* Organisation for Economic Co-operation and Development, Paris, France, 59 pp.

Liberatore, A., 1997: The integration of sustainable development objectives into EU policy-making: barriers and prospects. *The Politics of Sustainable Development: Theory, Policy and Practice within the European Union*, S. Baker, M. Kousis, D. Richardson and S. Young (eds.), Routledge, London, UK, 107–120.

Majone, G., 1989: *Evidence, Argument and Persuasion in the Policy Process.* Yale University Press, New Haven, CT, USA, xiii+190 pp.

Majone, G., 1996: *Regulating Europe.* Routledge, London, UK, xiv+315 pp.

McGray, H., A. Hammill and R. Bradley, 2007: *Weathering the Storm: Options for Framing Adaptation and Development.* World Resources Institute, Washington, DC, USA, vi+57 pp.

Michaelowa, A. and K. Michaelowa, 2007: Climate or development: is ODA diverted from its original purpose? *Climatic Change*, **84(1)**, 5–21. doi:10.1007/s10584-007-9270-3.

Nilsson, M., 2005: Learning, frames and environmental policy integration: the case of energy policy in Sweden. *Environment and Planning C: Government and Policy,* **23(2)**, 207–226. doi:10.1068/
c0405j.

Nilsson, M. and K. Eckerberg, 2007: *Environmental Policy Integration in Practice: Shaping Institutions for Learning.* Earthscan, London, UK, xix+172 pp.

Nilsson, M. and Å. Persson, 2003: Framework for analysing environmental policy integration. *Journal of Environmental Policy & Planning,* **5(4)**, 333–359. doi:10.1080/1523908032000171648.

OECD, 2002: *Improving Policy Coherence and Integration for Sustainable Development: A Checklist.* Policy Brief, Organisation for Economic Co-operation and Development, Paris, France, 8 pp.

Oxfam International, 2007: *Adapting to Climate Change: What's Needed in Poor Countries, and Who Should Pay.* Oxfam Briefing Paper 104, Oxfam International Secretariat, Oxford, UK, 47 pp.

Palerm, J., J.-P. Ledant and P. Brinn, 2007: Environmental integration in European Commission development co-operation programming: experiences in the use of country environmental profiles. *Impact Assessment and Project Appraisal*, **25(3)**, 163–174. doi:10.3152/146155107X224039.

Persson, Å., 2007: Different perspectives on EPI. *Environmental Policy Integration in Practice: Shaping Institutions for Learning*. M. Nilsson and K. Eckerberg (eds.), Earthscan, London, UK, 25–48.

Peters, B.G., 1998: *Managing Horizontal Government: The Politics of Coordination*, Research Paper No. 21, Canadian Centre for Management Development, Ottawa, Canada, iii+69 pp.

Peters, B.G., 2001: *The Politics of Bureaucracy.* Fifth edition, Routledge, London, UK, xii+388 pp.

Richardson, J., G. Gustafsson and G. Jordan, 1982: The concept of policy style. *Policy Styles in Western Europe*, J. Richardson (ed.), Allen and Unwin, London, UK, 1–16.

Rosenzweig, C., G. Casassa, D.J. Karoly, A. Imeson, C. Liu, A. Menzel, S. Rawlins, T.L. Root, B. Seguin and P. Tryjanowski, 2007: Assessment of observed changes and responses in

natural and managed systems. *Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, M.L. Parry, O.F. Canziani, J.P. Palutikof, P.J. van der Linden and C.E. Hanson (eds.), Cambridge University Press, Cambridge, UK, 79–131.

Schipper, E.L.F. and M. Pelling, 2006: Disaster risk, climate change and international development: scope for, and challenges to, integration, *Disasters,* 2006, **30(1)**, 19–38. doi:10.1111/j.1467-9523.
2006.00304.x.

Schön, D.A. and M. Rein, 1994: *Frame Reflection: Toward the Resolution of Intractable Policy Controversies.* Basic Books, New York, NY, xx+247 pp.

Schout, A. and A. Jordan, 2008: Administrative mechanisms. *Innovation in Environmental Policy? Integrating the Environment for Sustainability,* A. Jordan and A. Lenschow (eds.), Edward Elgar, Chelmsford, UK, in press.

Smith, J.B., R.J.T. Klein and S. Huq, 2003: *Climate Change, Adaptive Capacity and Development.* Imperial College Press, London, UK, viii+347 pp.

Sperling, F. (ed.), 2003: *Poverty and Climate Change: Reducing the Vulnerability of the Poor through Adaptation.* AfDB, ADB, DFID, EC DG Development, BMZ, DGIS, OECD, UNDP, UNEP and the World Bank, Washington, DC, USA, 43 pp.

Stern, N., 2007: *The Economics of Climate Change: The Stern Review.* Cambridge University Press, Cambridge, UK, xix+692 pp.

Tearfund, 2006: *Overcoming the Barriers: Mainstreaming Climate Change Adaptation in Developing Countries*. Climate Change Briefing Paper 1, Tearfund, Teddington, UK, 24 pp.

Tellam, I., 2007: Adaptation targets. *Tiempo,* **64**, 14–16.

Underdal, A., 1980: Integrated marine policy: what? why? how? *Marine Policy*, **4(3)**, 159–169. doi:10.
1016/0308-597X(80)90051-2.

UNDP, 2007: *Human Development Report 2007/2008—Fighting Climate Change: Human Solidarity in a Divided World.* Palgrave Macmillan, Basingstoke, UK, xvi+384 pp.

UNFCCC, 2007: *Investment and Financial Flows to Address Climate Change.* United Nations Framework Convention on Climate Change Secretariat, Bonn, Germany, 270 pp.

Urwin, K. and A. Jordan, 2008: Does public policy support or undermine climate change adaptation? Exploring policy interplay across different scales of governance, *Global Environmental Change*, in press.

Weale, A., 2005: *Governance and Sustainability.* Paper presented at the international research conference "The Governance of Sustainability", 23–24 June 2005, University of East Anglia, Norwich,   UK,
http://www.uea.ac.uk/env/cserge/events/governance_of_sustainability/weale.pdf.

WCED, 1987: *Our Common Future.* Oxford University Press, Oxford, UK, xv+400 pp.

Williams, R., 2007: *The Integration of Environmental Protection Requirements into EC Development Cooperation Policy*. EPIGOV Paper, Ecologic, Berlin, Germany.

World Bank, 2006: *Clean Energy and Development: Towards an Investment Framework.* DC2006-0002, World Bank, Washington, DC, USA, x+146 pp.

Yamin, F., 2005: The European Union and future climate policy: is mainstreaming adaptation a distraction or part of the solution? *Climate Policy*, **5(3)**, 349–361.