



Mainstreaming processes for climate change adaptation: Collection of best practices

**SPC/GTZ REGIONAL PROGRAMME
ADAPTATION TO CLIMATE CHANGE IN THE PACIFIC ISLAND REGION**



Mainstreaming processes for climate change adaptation: Collection of best practices

By the Secretariat of the Pacific Community and Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH
Programme on Adaptation to Climate Change in the Pacific Island Region



© Secretariat of the Pacific Community

Suva, Fiji, 2010

©Copyright Secretariat of the Pacific Community (SPC) 2010

Original text: English

Secretariat of the Pacific Community Cataloguing-in-publication data

Mainstreaming processes for climate change adaptation: collection of best practices / by the Secretariat of the Pacific Community and Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ)

1. Climatic changes.
2. Environment.

I. Title II. Secretariat of the Pacific Community III. Deutsche Gesellschaft für Technische Zusammenarbeit

577.22

AACR2

ISBN: 978-982-00-0447-4

Secretariat of the Pacific Community
Land Resources Division
Private Mail Bag
Suva
Fiji

Website: www.spc.int/lrd

For more information please contact: lrhelpdesk@spc.int

Compiled by Felix Ries and produced by the ICE Unit, SPC - LRD

Photographs by GTZ and SPC staff except where noted

Contents



Acronyms	7
Foreword	8
1 Introduction	9
2 Steps for Successful Mainstreaming	10
2.1 Typical steps in environmental mainstreaming	10
2.2 Steps for successful mainstreaming of disaster risk reduction	12
2.3 Summary	15
3 Examples of Best Practices	16
3.1 National planning and institutions	16
3.1.1 Mainstreaming climate change in the Cook Islands National Development Strategy	18
3.1.2 Integrating poverty-environment links into Rwanda's economic development and poverty reduction strategy process	17
3.1.3 Examples of countries linking their national programmes of action (NAPA) and national policies	18
3.1.4 Mainstreaming environment in Tanzania	16
3.1.5 Progress on mainstreaming: Pacific islands	19
3.1.6 Budgeting for the environment in Uganda	20
3.1.7 Crosscutting issues in district development planning: A methodology for integration based on promising practices for HIV and disaster risk management in Lesotho and Mozambique	20
3.2 Institutional arrangements	21
3.2.1 The National Advisory Committee on Climate Change, Vanuatu	21
3.2.2 Political support for integration in Bangladesh	22
3.2.3 Progress on mainstreaming in Mexico: Institutional challenges	22
3.3 Sectoral mainstreaming	23
3.3.1 Mainstreaming climate change into the forest policy of Tonga.	23
3.3.2 Strategic environmental assessment as a tool to integrate climate change adaptation in Viet Nam	24
3.4 Project level	26

Contents *continued*

3.4.1 Reducing climate vulnerability through micro-credit in Nicaragua	26	4.3.2 Cl:grasp: Climate Impacts: Global & Regional Adaptation Support Platform (GTZ & PIK)	35
3.5 Learning and information sharing	27	4.3.3 weADAPT (a suite of tools referred to as a platform) (Stockholm Environment Institute (SEI) e.a.)	36
3.5.1 Learning from experiences: The environmental mainstreaming learning group approach: examples from Tanzania	27	4.3.4 PRECIS: Providing REgional Climates for Impacts Studies (Met Office Hadley Centre)	36
3.5.2 Exchange visits: United Republic of Tanzania to Uganda; Uganda to Rwanda	28	4.3.5 Policy tool for climate change vulnerability assessment (Japan International Cooperation Agency)	37
4 Tools for Mainstreaming	29	5 Lessons Learned and Key Messages	37
4.1 Tools to integrate climate change with development institutions	29	5.1 Constraints on successful mainstreaming	37
4.1.1 Climate check (GTZ)	29	5.2 Recommendations for successful mainstreaming	38
4.1.2 ORCHID: Opportunities and Risks of Climate Change and Disasters (UK Department for International Development)	30	5.2.1 Information	38
4.1.3 Project screening tool for climate risks (Asian Development Bank)	30	5.2.2 Organizational structure and stakeholder inclusion	38
4.1.4 Mainstreaming disaster risk reduction (Tearfund)	31	5.2.3 Incentives	39
4.1.5 UNDP's quality standards for integrating adaptation to climate change with development programming (CCA QS)	31	5.2.4 Finances	39
4.2 Tools to integrate climate change at a project or community level	32	5.2.5 Process	40
4.2.1 Risk and Opportunity Analysis of AdapCC (GTZ)	32	6 Key Documents and Literature	40
4.2.2 Coastal adaptation guidebook (USAID)	32	Other sources cited:	45
4.2.3 CRISTAL: Community-based risk screening tool – adaptation & livelihoods (International Institute for Sustainable Development)	33	Annexes	44
4.2.4 Climate change and Environmental Degradation Risk and Adaptation assessment – CEDRA (Tearfund)	33	Annex I: National Guidelines for Mainstreaming Adaptation to Climate Change in the Cook Islands	44
4.2.5 Strategic environmental assessment	33	Annex II: Vanuatu National Advisory Committee on Climate Change. Terms of Reference	46
4.3 Information tools	35	Annex III: Overview of Tools for Mainstreaming	47
4.3.1 Climate Change Data Portal (World Bank)	35		

ACRONYMS

- ADB – Asian Development Bank
- CICC – Inter-Secretarial Commission on Climate Change (Mexico)
- DFID – UK Department for International Development
- DRM – Disaster Risk Management
- DRR – Disaster Risk Reduction
- EDPRS – Economic Development and Poverty Reduction Strategy
- GEF – Global Environment Facility
- GTZ – Deutsche Gesellschaft für Technische Zusammenarbeit GmbH (German Technical Cooperation)
- IIED – International Institute for Environment and Development
- MDG – Millennium Development Goals
- NAPA – National Programme of Action
- NACCC – National Advisory Committee on Climate Change (Vanuatu)
- OECD-DAC – Organisation of economic co-operation and development – Development Assistance Committee
- PRODER – Programa de Desenvolvimento Rural (Rural Development Programme by GTZ in Mozambique)
- PRSP – Poverty Reduction Strategy Papers
- SEA – Strategic environmental assessment
- SPREP – Pacific Regional Environment Programme
- UNDAF – United Nations Development Assistance Framework
- UNDP-UNEP PEI – United Nations Development Programme -United Nations Environment Programme Poverty-Environment Initiative
- USAID – United States Agency for International Development



FOREWORD



Inoke Ratukalou

Acting Director, Land Resources Division

With increasing temperatures, rising sea levels and stronger extreme weather events, climate change is a serious threat to the Pacific Islands. While the first effects have been observed already, only in the coming decades will it become clear what global warming really means for us. When we think about climate change, we often think of islands being swallowed by the sea or crops failing after a drought. But climate change will affect most elements of our society. In addition to the expected impacts on disaster management and agriculture, many other sectors such as tourism, energy, fisheries, health and urban development will have to cope with changing climatic conditions.

To respond to climate change requires new techniques, new crops and altered infrastructure. But this alone is not sufficient. We also need a change in mindset. Every time we plan an investment, we must ask ourselves: Will changing climatic conditions impact its future development? Obviously it is not easy to plan with respect to climate change because there are still uncertainties regarding specific localised projections. But other uncertainties are integrated into planning processes as well, like economic changes. Why not make a 'climate check' a normal procedure, just like a cost-benefit analysis or the evaluation of other conditions? Such an analysis of potential climate risks and options to mitigate them gives us the chance to raise income, establish food security and secure investments despite extremer weather events and changing coastlines.

The integration of climate change into decision-making and planning is known as 'mainstreaming'. Climate change is not the first issue to be mainstreamed. Other important issues such as gender equality, environmental protection and conflict prevention need to be integrated across all sectors. Many governments, development agencies and organisations have gained experience with mainstreaming efforts. By learning from the efforts of others we can avoid many unnecessary setbacks and save valuable time needed to adapt as fast as the climate is changing.

For this purpose we have collected best practices from mainstreaming efforts all over the world and are publishing them in this volume. We hope you find it a useful source of inspiration that supports your actions for sustainable development.



1 INTRODUCTION

The Pacific-German Regional Programme on Adaptation to Climate Change supports the endeavour of Pacific countries to ‘mainstream’ adaptation to climate change. Integrating climate change issues into the strategies and services of SPC programmes, and into the land use strategies and planning documents of Tonga and Vanuatu, are central aspects of the programme.

But what do we mean when we talk about mainstreaming? Usually it is equivalent to ‘integrating’ an issue into another area, such as a policy or an institution. In this document, mainstreaming adaptation refers to the incorporation of measures, strategies and information to reduce vulnerability to climate change, in policies, strategies, programmes, development planning, institutions and decision-making processes.

Climate change could affect almost every sector in society – from economic development to the health sector, livelihoods based on agriculture, infrastructure and food security. That is why climate change is more than an ‘environmental’ concern – it should be taken into account in every ministry and development project.

This collection of best practices looks at successful mainstreaming efforts to provide policy makers and planners in the Pacific with ideas and lessons learned. The examples, which come from different regions and sectors including the Pacific, are not only illustrating adaptation to climate change. Many examples originate from other related mainstreaming efforts like disaster risk management or environmental mainstreaming.

Interestingly, one major obstacle of mainstreaming has hardly been discussed in the literature reviewed, that is, so called ‘mainstreaming fatigue’. This phenomenon describes the excessive demands placed on policy makers and development planners to take more and more issues into account which, at first glance, are unrelated to the project goal. Common issues to be mainstreamed include gender, HIV/AIDS, conflict, environment and disaster risk reduction. The pressure to integrate progressively more of these important topics has continued, but it is obvious that people will undertake mainstreaming only if they are convinced that there will be an advantage in the long run. This can be an economic calculation or a demonstration that neglecting climate change might jeopardize the success of the project. The additional workload connected with the mainstreaming of adaptation to climate change can be reduced if effective and easy-to-use tools are available, which minimize the additional efforts.

This collection of best practices starts with two step-by-step approaches to mainstreaming exercises (Chapter 2). The main part of the report is the collection of 15 best practice mainstreaming processes from different sectors (Chapter 3). Chapter 2 describes the process of mainstreaming, and Chapter 3 is arranged according to the scope of the intervention: National level planning, institutional changes, sectoral mainstreaming, project level and learning and information sharing – a similar arrangement can be found in the OECD (2009) Policy guidance on integrating climate change adaptation into development co-operation. After each best practice I extracted the key success factors. The best practices have been documented elsewhere, and the case studies are direct quotes; I have written only sections 3.1.1, 3.2.1 and 3.3.1.

The next section (Chapter 4) describes tools to ease the mainstreaming efforts. The lessons learned from the case studies, and the resulting recommendations and documents, are aggregated in Chapter 5 according to five different recommendation categories. Key documents and literature are described in Chapter 6. Consulting the manuals and guidance offered is highly recommended if a mainstreaming process is to be started.

2 STEPS FOR SUCCESSFUL MAINSTREAMING

The literature on mainstreaming in the development context provides various sets of guidelines, frameworks and recommendations on how to implement mainstreaming at different levels. While the focus and content differ according to the topic and the publishing organization, the main processes and building blocks are often similar. Two examples describe the different steps in mainstreaming, and are taken from: *The challenges of environmental mainstreaming. Experience of integrating environment into development institutions and decisions* (IIED 2009) and *Tools for mainstreaming disaster risk reduction: Guidance notes for development organisations* (ProVention 2007). The first example comes from the context of environmental mainstreaming and the second promotes the mainstreaming of disaster risk reduction in development organizations. The examples can easily be applied to climate change adaptation given the close relationship of these subjects. The steps are not necessarily in chronological order but often overlap and feed into each other.

2.1 Typical steps in environmental mainstreaming

The precise steps will depend upon the standard programmatic (cyclical) requirements of the analytical/planning process concerned. Typical steps for a comprehensive national process, from good practice to date may include:

1. **Scope the political economy and governance structures affecting environment and development** – who is making decisions and for whom, who is benefiting, who is bearing costs and risks – and associated motivations and incentives.
2. **Convene a multi-stakeholder group to steer the mainstreaming process.** This should combine environment and development interests as well as those who bridge the interests – to act as ‘champions’ for environmental mainstreaming, track progress, and provide policy and other recommendations to government, etc. Composition will be informed by 1 above. The format might be a National Councils/Commissions for Sustainable Development as established in many countries, or an informal ‘learning group’, as developed by the International Institute for Environment and Development (IIED).
3. **Identify the current links between development and environment**, both positive and negative. This could be expressed, e.g. in terms of how specific environmental issues or initiatives help to achieve or inhibit progress towards each of the MDGs (or in terms of benefits such as incomes, livelihoods, health, safety net, growth, etc.); or how development initiatives support or impair particular ecosystem services. In some countries, national wealth accounts can be used to illustrate the relative significance of environmental assets.
4. **Propose desirable environment-development outcomes** and clarify how they differ from the current links – their potential to open up and develop environmental opportunities or tackle key environmental constraints or hazards.
5. **Map institutional roles and responsibilities** for each of the links and desirable outcomes (by spatial level, or by sector) – identifying synergies as well as lacunae/clashes.
6. **Identify associated institutional, governance, and capacity changes** required to improve outcomes and evolve more appropriate roles and responsibilities. As far as possible, diagnose the current levels of capacity.
7. **Identify relevant entry points for environmental mainstreaming** in key decisionmaking processes, informed by the above. National planning, public sector reform, and aid planning processes can all offer effective entry points.

8. Conduct expenditure reviews and make the ‘business’ case for improving environmental inclusion in each of the specific links (benefits, costs, risks and their distribution – in financial terms as far as possible and where relevant) and feed this into the ‘entry points’.

9. Establish or use existing forums and mechanisms to put the above to public/multi-stakeholder debate and to agree on/build consensus on what needs to be prioritised e.g. national planning procedures, or donor coordination mechanisms such as the UNDAF

10. Reflect agreed changes in key mainstream documents that have a recognised mandate – notably (a) policies, (b) strategies, plans and programmes, and (c) budgets. In general (but not exclusively), the more ‘upstream’ the better e.g. fiscal policy rather than one financial instrument.

11. Promote key investments in development-environment links that pass cost-benefit tests – by government, private sector and civil society – especially where these contribute directly to key sectors in the national/local economy.

12. Develop integrated institutional systems and associated capacities – for coordination, management, financial, information and communication, and monitoring systems – so that they incorporate environment on a sustained basis.

13. Ensure responsible organisations are accountable – develop/adopt a clear set of indicators that measure if a society or initiative is truly based on sustainable development principles and ensure these measurements can hold organisations accountable and support continuous improvement.”

(Source: IIED. 2009. The challenges of environmental mainstreaming. Experience of integrating environment into development institutions and decisions. p. 77.)



2.2 Steps for successful mainstreaming of disaster risk reduction



Figure 1. Steps for successful mainstreaming (ProVention 2007: 16)

Step 1: Awareness-raising

Appreciation and understanding of the relevance of disaster risk reduction to sustainable development.

Increased awareness of the potential importance of examining and, if necessary, addressing disaster risk is critical, on the part of both governments and development organisations, in striving for sustainable development and poverty reduction.

Accountability.

Most fundamentally of all, development organisations and governments need to accept greater accountability for hazard-related human, physical and economic losses. Such losses pertain to countries and governments rather than development organisations. However, development organisations are accountable for ensuring that their resources are used effectively and responsibly. Governments, in turn, need to assume greater responsibility for their countries' and peoples' vulnerability and to actively seek to reduce risk.

Success factors: *the generation of knowledge about the likely impacts should form the basis of awareness-raising activities. Identifying and recording aspects of vulnerability and resilience as well as analysing the likely economic impacts, can provide incentives for action. Committed "political champions" can promote mainstreaming at high levels.*

Step 2: Establishing an enabling environment

Appropriate development organisation policies, strategies and institutional capacities.

Overarching development organisation policies and strategies need to pay due attention to disaster risk reduction, regarding it as a development issue rather than the responsibility of humanitarian departments. Revised policies and strategies need to be reflected in appropriate institutional arrangements.

Government prioritisation of disaster risk reduction.

As development organisation aims and objectives are increasingly aligned with national development and poverty reduction strategies, it is essential that governments themselves prioritise risk reduction as a critical development challenge in high-risk countries and develop related policies, capabilities and legislative and institutional arrangements. Development organisations need to explore incentives for encouraging governments in this process.

Success factors: *governments should be encouraged to build the capacities for mainstreaming disaster risk management (DRM) into policies, legislation, plans and strategies, as well as in the construction of institutional arrangements. Stakeholder involvement is necessary to ensure long term commitments. Indeed all government agencies should be involved, not just one sectoral department with limited significance. The mainstreamed topic should be considered in the budget allocation.*

Step 3: Development of tools

Programming, appraisal and evaluation tools are required to investigate countries, sectors and individual projects at risk from natural hazards, provide detailed information on the nature and level of risk and ensure that appropriate risk reduction measures are taken

Success factors: *(see Chapter 4: Tools for Mainstreaming). An acknowledgement by staff of the value of tools, in case these are considered to be another burden without benefits; internal advocacy may be needed as well as a clear understanding of the advantages of using the tools.*

Step 4: Training and technical support

Development organisations need to provide appropriate internal training and technical support to support the integration of disaster risk concerns into development.

Success factors: *Lack of training and support is one of the biggest obstacles to successful mainstreaming. Training should be site and context specific to ease the implementation by the training participants.*





Step 5: Change in operational practice

Early assessment.

It is essential that hazard-related issues are considered during the very early stages of country programming and project design so that they can be fully and systematically taken into account and appropriately addressed where relevant. Country strategies and related country environmental analyses should indicate in which countries mainstreaming is required.

Adequate supporting information.

Sufficient information is necessary to permit a full and accurate assessment of disaster risk and its appropriate treatment. Countries may require support in strengthening their information base – for instance, in improving hazard data collection and analysis.

Cost minimisation.

Disaster risk analysis should be integrated into country programming and project design at minimum cost. Pooling of relevant information and related analysis within the development community and with governments would help achieve this.

Treatment of low-probability, high-impact risks.

Climatological hazards are most likely to be identified as potential risks, reflecting their shorter return periods and thus higher probability that they will occur over the life of a project or country strategy. In contrast, risks emanating from earthquakes and volcanic hazards, with much longer return periods, may be discounted. However, even if ignored from an economic perspective, it is important to ensure that earthquake and volcanic risks are adequately considered from a safety perspective, taking rights to safety and protection into account.

Transparent, inclusive and accountable consultation.

The consultative process must give a voice to poor and marginalised groups, who are often among the most vulnerable to natural hazards, and ensure that their interests are adequately addressed and their rights protected.

Adequate upkeep and maintenance of development investments.

Mechanisms for ensuring that development investments are adequately maintained and remain in good condition are essential in ensuring that their designed level of hazard resilience is maintained.

Success factors: *The timing of a mainstreaming intervention is crucial; entry points in the policy cycle should be identified. Prioritisation of adaptation options according to the expected impacts should be encouraged.*

Step 6: Measuring progress

Internationally agreed targets for disaster reduction should be established or disaster risk reduction concerns explicitly incorporated within Millennium Development Goals, providing a common focus for development organisations and governments against which progress in mainstreaming can be measured.

Success factors: *A proper monitoring and evaluation systems needs to be in place. Indicators for measuring progress should not rely only on reduced actual loss but on reduced vulnerability (reduced probable loss). Alignment with the targets of regional plans and frameworks ensures consistency.*

Step 7: Learning and experience sharing

The development community, together with other stakeholders, should make a concerted effort to monitor, share and learn from its experience in mainstreaming disaster risk reduction into development.

(Source: ProVention. 2007. Tools for mainstreaming disaster risk reduction: Guidance notes for development organisations. p. 15-16).

Success factors: *By building on the monitoring system and a good knowledge management system, the lessons learned should feed back into the mainstreaming process during the whole project period to improve performance.*

2.3 Summary

In a nutshell the building blocks for successful mainstreaming are the provision of information for a broad awareness campaign and lobbying at high levels of government. Framework conditions have to be adjusted to facilitate the mainstreaming process. Identifying key actors and setting up structures and institutions (like cross-sectoral committees) are part of this exercise. Strategies, policies, plans, legislation, etc should be reviewed to integrate climate change using the established institutions. Specific tools and training will be a precondition for this. In these ways a change in operational practice can eventually be achieved – the topic is successfully mainstreamed. Monitoring and evaluation help to steer the mainstreaming process and provide information for learning from experiences.





3 EXAMPLES OF BEST PRACTICE

3.1 National planning and institutions

3.1.1 Mainstreaming climate change in the Cook Islands National Development Strategy

In 2003 the Cook Islands began to prepare a National Development Strategy to outline the broad economic and sector development policies. A newly established Coordination Unit based in the Prime Minister's office and supported by consultants provided by the Asian Development Bank (ADB) organized a National Development Forum to review progress over the last 20 years and to establish a framework for the formulation of a long-term (20 years) National Development Strategy. The National Development Forum, representing all sectors of the community, identified the following strategic objectives

- good governance and law and order;
- macroeconomic stability and economic development;
- improved quality of education;
- improved quality of health care services;
- improved standard of infrastructure and provision of utilities, including transport services;
- increased agricultural productivity and self sufficiency and food security; and
- improved development and management of marine resources.

With support from the ADB the 'Adaptation mainstreaming guidelines for the Cook Islands' were developed. Existing studies on the potential climatic risks were consulted and new studies conducted. The process of climate proofing was organized around the seven strategic priorities listed above and guided by specific questions for every priority to reveal the challenges associated with climate change. The identified key challenges, objectives and actions required (e.g. governance: the institutionalization of a climate change country team; education: inclusion of climate change into the formal education curricula; infrastructure: revising environmental impact assessment regulations to include climate change) were presented to the government and approved by Cabinet. The national guidelines for mainstreaming adaptation to climate change were also approved in August 2004. (See guidelines in Annex I. ADB. 2005. Climate proofing: A risk based approach to adaptation).

Success factors: *high-level support, cross-sectoral cooperation, stakeholder inclusion, development of mainstreaming guidelines, identification of no-regret options.*

3.1.2 Integrating poverty-environment links into Rwanda's economic development and poverty reduction strategy

process

Background. In January 2006, Rwanda launched the formulation of its second (Poverty Reduction Strategy Papers (PRSP), the Economic Development and Poverty Reduction Strategy (EDPRS). A large number of stakeholders,—including development actors, civil society and other interested groups—were invited from the onset to participate in the process. Environment was identified as a cross-cutting issue to be mainstreamed into the EDPRS, and there had been, in the recent past, much focus on the environment from the highest political level. However, capacity within the sector was quite low, and a great deal of technical support was needed for successful poverty-environment mainstreaming.

Poverty-environment champions engaging with the process. Throughout the formulation process, a team from Rwanda, with the help of the United Nations Development Programme-United Nations Environment Programme Poverty-Environment Initiative (UNDP-UNEP PEI), supported all sectors involved. The work entailed participating in the development of and reviewing all sectors' logical frameworks that were the foundation for the EDPRS, contributing to the drafting process, preparing sections for selected chapters, engaging in monitoring and evaluation discussions and reviewing several drafts of the EDPRS. A key contribution was the submission of briefs to policymakers that made the case for the significance of the environment to human well-being and economic growth in the Rwandan context. The process was intensive and required continuous interaction with both sector actors and policymakers. Often, champions and PEI staff had to cover several meetings simultaneously. It proved effective to repeat the same messages in different settings, to prepare sector-specific tools, and to hold many one-on-one meetings to get messages across.

Key role of the planning and finance ministries. The ministries chaired the crosscutting issues working group, which served as an important forum to make the case for prominently featuring poverty-environment issues in the EDPRS.

Making use of country-specific evidence. Many of the data used were collected specifically for this exercise through different assessments, including an integrated ecosystem assessment and an analysis of the economic costs of environmental degradation (see sections 5.1 and 5.2). From the economic analysis, two pieces of information had particular impact: the estimate of the cost to the government of using diesel in generating electricity (\$65,000 per day), due to the degradation of the Rugezi wetland and the resulting shortfall in hydroelectric power generation (EIU 2006); and the estimation of losses to the national economy attributable to soil erosion, valued at almost 2 per cent of GDP.

Outcome. In the final EDPRS, the environment is both a goal in its own right and a cross-cutting issue. The strategy includes several environmental priorities and activities for sectors, such as removal of import duties related to renewable energy and energy efficiency, a focus on high-end ecotourism and soil conservation measures (e.g. terracing and agroforestry technologies for sustainable land use) and water harvesting and collection techniques for agriculture. This successful mainstreaming effort has also translated into a significant budget increase for the environment sector to ensure implementation of policy measures, including in the formulation of district-level development plans

(Source: UNDP/UNEP. 2009. Mainstreaming poverty-environment linkages into development planning: A handbook for practitioners p. 62).

Success factors: *key role of important ministries, economic calculation of degradation, support from high-level champions.*

3.1.3 Examples of countries linking their national programmes of action (NAPA) and national policies

Although little integration of adaptation to climate change has yet occurred at the national level, there are some examples of countries integrating climate change concerns in their national policies or development strategies and poverty reduction strategies. ... The Bangladesh PRSP highlights how a national policy framework can provide the basis for mainstreaming climate change adaptation programmes, such as the National Programme of Action (NAPA) and the comprehensive disaster management programme. The PRSP recognises climate change as a cause of 'grave concern' to the country, highlighting the challenges posed by sea-level rise. The poverty diagnosis discusses extensively the relation between natural disasters, growth and poverty. Climate change is considered as one of the challenges for water resource management and environmental protection. The PRSP has 19 policy matrices that were developed to operationalise the strategy, one of which focuses exclusively on comprehensive disaster management. One of this matrix's key targets is to 'factor vulnerability impacts, and adaptation to climate change into disaster management and risk reduction plans, programmes, policies and projects'. This, together with an acknowledgement of the NAPA as a national implementation programme, helps to ensure policy coherence for adaptation activities. The Bangladesh NAPA also took the PRSP into account as the priority adaptation strategies identified were specifically prepared to complement the PRSP. The NAPA refers to PRSP policy matrices on 'comprehensive disaster management' and 'environment and sustainable development' in devising strategies to address climate change issues and raise awareness.

The Republic of Kiribati is another country making efforts to mainstream adaptation into its national development policies. It has implemented two national adaptation processes: the NAPA and the Kiribati Adaptation Programme (KAP). While the NAPA gives attention to urgent and immediate adaptation needs, the KAP focuses on long-term planning for climate change adaptation. Lessons learnt from both of these initiatives will be used to plan the national response to climate change from 2008–2009 onwards. A framework to integrate the NAPA and the KAP into the overall national policy development process is provided by the national development strategy (NDS) 2004-07, which is supplemented by the climate change adaptation policy and strategies and the government budget. The NDS notes that 'climate change is posing costly risks to economic growth, and calls for the development of participatory and cost-effective ways of minimizing and managing risk of loss from climate change related events'. It thus provides an opening for integrating climate change adaptation planning into the national policy process. (Source: OECD. 2009. Integrating Climate Change Adaptation into Development Co-operation: Policy Guidance, p. 81. OECD Publishing, <http://dx.doi.org/10.1787/9789264054950-en>).

Success factors: *National development goals and strategies should be taken into account when developing and prioritizing adaptation options. NAPAs and other adaptation strategies should be integrated into national strategic planning, along with calculations on potential financial and developmental risks if climate change is not taken into account.*

3.1.4 Mainstreaming environment in Tanzania

Environment is one of the priority crosscutting issues in the development of Tanzania's second generation Poverty Reduction Strategy (PRS) Paper. Development partners have been working with the government on environment and the PRS for over three years. As result, a programme has been developed to integrate environment into the PRS process. The programme is under the Poverty Eradication Division of the Vice President's Office, and the Ministry of Finance is fully involved. Environment is now becoming seen an essential element for sustainable growth and the achievement of poverty reduction targets. Included in this is the reduction in vulnerability of the poor from environmental risk, and the need to address issues of drought and floods, and in the longer term how these risks may increase from climate change. In this context the development of the new PRS is looking at how to integrate commitments under multilateral agreements and include actions on adaptation for climate change and desertification.

(For more information, see www.povertymonitoring.go.tz.)

One of the central principals of the PRS is national ownership. Consequently the PRS is becoming harmonised with the budgetary and other planning processes. Key steps to mainstreaming environment in Tanzania are:

- A strong national group of 'champions' from government and non-government organisations on environment has been active since mid-1990s.
- Provision of catalytic support by development partners.
- Focus on identifying the practical links between poverty and environment.
- Development of a cross-sectoral working group on the environment.
- Public expenditure review on environment to assess the contributions environment to growth and poverty reduction and levels of expenditure on the environment.
- Development of poverty-environment indicators for local and national monitoring systems.
- Development of environment issues and appraisal are integrated into planning processes, particularly at the local level.
- Focus on how multi-lateral commitments on environment (e.g., Climate Change convention) can be integrated into national policies and strategies.

(David Howlett, UNDP Tanzania, Energy and Environment Practice Network E-discussion on "Mainstreaming Environment into the PRS"; cited in UNDP. 2004. Continuing the adaptation process. Adaptation policy framework Chapter 9. p. 215).

Success factors: *high-level support and involvement of key ministries; calculations of financial and developmental benefits of mainstreaming; cross-sectoral cooperation through working groups*

3.1.5 Progress on mainstreaming: Pacific islands

The Pacific islands have received considerable support for adaptation from the Asian Development Bank (ADB) for the Climate Change Adaptation Program for the Pacific (CLIMP), which has produced a set of guidelines on mainstreaming adaptation, focusing on its integration into disaster risk reduction strategies. The World Bank



produced a regional economic report, *Cities, seas and storms*, which assessed the potential impact of climate change and led to a regional dialogue attended by ministers and senior officials from finance and planning ministries. One of the activities that emerged from the regional dialogue was the Kiribati Adaptation Program, funded by the World Bank- Global Environment Facility. This program provides a good example of the international community's efforts to help island countries adapt.

It is a useful example more generally, though, because the island of Kiribati, like many post-colonial countries, has a government with strong sectoral segmentation. The programme has successfully integrated climate risk management into national development strategies and ministry operational plans for all relevant sectors, and it is about to enter its investment phase. The lessons are two-fold. Firstly, horizontal coordination across sectors is more effective if it is situated within an important ministry: in Kiribati, the program was situated within the Ministry of Finance and Economic Planning and then, when it had built up enough broad support, was moved to the Office of the President as part of a new National Strategic Risk Management Unit. Secondly, such horizontal coordination is not as effective as vertical coordination when attempts are made to institute regulatory changes or consult with communities on development plans.

(Source: Reproduced from 'Overcoming the barriers. Mainstreaming climate change adaptation in developing countries' by permission. Copyright Tearfund UK 2006. p. 11. (www.tearfund.org).

Success factors: *horizontal coordination at high level; coordinating institution located in an important ministry.*

3.1.6 Budgeting for the environment in Uganda

After the Ugandan National Environment Management Authority had worked to integrate the environment into its PRSP, it seized on an opportunity to include the environment into the national budget. A key deadline for finalizing the budget was imminent. The authority's executive director made a phone call to the budget director at the Ministry of Finance explaining the importance of the environment to development and the costs of inaction. The budget director was convinced and immediately accepted the idea of adding guidelines for the environment into the budget call circular. Since then, the budget director has been challenging environmental actors to present more concrete, detailed and costed proposals on which environmental interventions should be prioritized by sectors and local governments. His leadership has been extremely positive and presages a bright future for mainstreaming efforts in Uganda.

(Source: UNDP-UNEP PEI 2008a cited in UNDP/UNEP. 2009. *Mainstreaming poverty-environment linkages into development planning: A handbook for practitioners*. p. 82).

Success factor: *strong support from high-level decision-makers*

3.1.7 Crosscutting issues in district development planning: A methodology for integration based on promising practices for HIV and disaster risk management in Lesotho and Mozambique

In Mozambique, the government has developed a clear national policy, which includes concrete strategies for HIV. This defines responsibilities, sets guidelines and makes funds available for concrete measures, so that district development planners are able to address the epidemic across a range of sectors. By addressing HIV as a crosscutting issue, Mozambiquan district planners are also able to help implement national policies at provincial and district levels. For example, the GTZ Programme of Rural Development (PRODER) offers technical support for integrated planning for HIV and disaster risk management in six districts of the provinces of Manica, Inhambane and Sofala. To support decentralization in Lesotho, GTZ provides technical support for decentralized rural development at all levels of governance, with special focus on the four Southern Districts: Mafeteng, Mohale's Hoek, Quthing and Qacha's Nek. HIV is mainstreamed throughout the work. Efforts to integrate crosscutting issues in planning often lead to links with existing national strategies. Questions that guide the response of planners in each sector in Lesotho include: What aspects of each job inhibit (or encourage) the spread of HIV?; and what aspects reduce (or amplify) the impacts of HIV?

Decentralized district development planning is complex and the various stakeholders, sectors and government departments involved may have competing interests. Where possible, however, planning should normally unfold in four critical steps. First, those responsible must identify relevant crosscutting issues using objective criteria. Second, one must convince key decision-makers and local leaders to ensure that these crosscutting issues are given priority on the agenda of district development planners. Third, one must familiarize district planners with the crosscutting issues and the technical support available to help them address these issues. Fourth, district planners need to address the crosscutting issues in all phases of district planning by establishing a mandated structure, collecting baseline data, elaborating strategies and tactics, budgeting and monitoring outcomes. District planning is more complex when it reaches across a number of sectors. It also requires, initially, more meetings to ensure that all those involved understand the importance of addressing crosscutting issues. As this paper argues, however, planning can be done in ways that do not unduly complicate the process, or the coordination of different agencies and actors, unnecessarily. The ultimate goal of planning, of course, is to smooth the implementation of services and other interventions. The approach proposed here contributes to this in at least three basic ways: by raising awareness of major multisectoral issues among decision-makers and communities, clarifying quantitative and qualitative aspects of crosscutting issues and preparing those responsible, across a range of sectors, for a structured, organized and integrated response (Source: GTZ. 2008. Crosscutting issues in district development planning. p. 4).

Success factors: *strategic phase approach to mainstreaming; gaining support from key decision-makers; providing technical support and policy advice; giving planners a mandate to include the crosscutting issues; lowering staff turn-over to sustain capacity in departments.*

3.2 Institutional arrangements

To incorporate a topic into different sectors and government departments requires an institutional arrangement which is pushing the mainstreaming agenda. The mainstreaming process can be facilitated by e.g. newly formed cross-sectoral committees or climate change units. Experience from different countries suggests that the mandate and strength of these organizational structures are decisive for their success. The existing institutional arrangements of each country form the framework for the mainstreaming process. The best practices provided below nevertheless give an idea how some countries deal with the institutional challenges.

3.2.1 The National Advisory Committee on Climate Change, Vanuatu

The lack of communication and cooperation among the different actors of government and other stakeholders has been identified as one of the obstacles to implementing environmental projects. The National Advisory Committee on Climate



Change (NACCC), Vanuatu, established in 1989 during the UNFCCC negotiations, was re-formed to prepare the NAPA in 1999. The NACCC is coordinated by the Vanuatu Meteorological Service but comprises relevant government and civil society staff across the different sectors. It has the mandate to deal with all climate change-related projects and decisions with regard to the international climate negotiation and the UNFCCC process. The NACCC coordinates all climate change projects and is therefore in a good position to achieve maximum alignment and complementarity of climate change projects. The mainstreaming of climate change is part of the terms of reference of the NACCC:

- ‘ Facilitating political inclusion in the national climate change process, particularly to encourage appropriate policy development to enable effective national responses to climate change;
 - Inform respective departments on Climate Change issues, particularly consideration of climate change issues in sectoral policies and other department plans’.
- The TORs are included in Annex II.

The NACCC is operating effectively in advising the government, coordinating climate change projects and promoting the climate change agenda in Vanuatu. The Committee meets regularly and is supported by a secretariat to implement its decisions efficiently (SPREP 2009; personal communication).

Success factors: *cross-sectoral and multi-disciplinary composition with stakeholder involvement; strong leadership and personalities of NACCC members; strong mandate for the NACCC.*

3.2.2 Political support for integration in Bangladesh

Progress made on adaptation and disaster risk reduction (DRR) by Bangladesh is commonly cited as a good example, not least because of the country’s experience of climate-related disasters. These experiences and the predictions of increasing pressures have driven the Government to establish an inter-ministerial committee on climate change. This seeks to integrate climate change into policy documents.

The Minister for Environment and Forests heads the committee (with representation from relevant Government ministries and departments as well as key non-governmental organizations and research institutions). It is conceivable that in countries with less direct links with climate change impacts and established strategies for dealing with disaster risk, the lack of official representation by the Prime Minister’s Office or the Finance and Planning Ministries could be a major constraint to mainstreaming adaptation (Huq et al., 2003). This is because, if external to such a committee, the highest level decision makers may view climate change as less of a national priority and more of an environmental issue or an ‘add-on’.

(Source: UNFCCC. 2008. Integrating practices, tools and systems for climate risk assessment and management and strategies for disaster risk reduction into national policies and programmes. p. 33–34).

Success factors: *coordination of climate change adaptation by a strong, powerful ministry ensures that it is integrated into broader development policies; inter-sectoral committees ensure the involvement of all relevant stakeholders*

3.2.3 Progress on mainstreaming in Mexico: Institutional challenges

In Mexico, the Inter-Secretarial Commission on Climate Change (CICC) was established in 2005 to coordinate the development of national policies on climate change, and is responsible for incorporating adaptation actions across different sectors, developing legal frameworks to achieve this and updating commitments to the UNFCCC. The environment ministry is responsible for coordinating climate change policy through the CICC. Mexico’s National Development Plan 2001–2006 includes strategies to reduce vulnerability to climate change, strategies which resulted in small farm sector intensification; improved employment opportunities in commercial agriculture; growth of rural non-farm sector; migration of the young; and provision of safety nets for those trapped in poverty. In addition, a shift towards prevention in disaster management has led to the setting up of scientific advisory committees, improved engineering standards and the retrofitting of schools to withstand high winds, and hospital readiness standards.

Overall, although some progress has been made, institutional fragmentation remains a barrier to mainstreaming climate change adaptation in Mexico. One of the main problems is that responsibility for climate change and disaster management are separated between environmental and civil defence arms of government, and their associated research institutions. Climate change adaptation is isolated from the development agenda by its institutional location within the environmental ministry, which has little influence over other government departments. A further problem is that of political discontinuity, which hinders a long-term approach to reducing climate risk. High turnover of governments and loss of key 'champions' mean the loss of skills and capacity as well as the political will to continue with policies introduced by previous administrations. This is compounded by a general unwillingness to involve stakeholders in policy-making processes.

The barriers to mainstreaming climate change adaptation in Mexico are therefore mainly institutional. There is an awareness of actual climate risks within government departments and at the community level, but poor coordination between sectors and very short political and funding horizons make full integration of adaptation measures particularly difficult.

(Source: Reproduced from 'Overcoming the barriers. Mainstreaming climate change adaptation in developing countries' by permission. Copyright Tearfund UK 2006. p. 14. (www.tearfund.org).

Success factors: *intersectoral committee is responsible for climate change mainstreaming, but fragmentation at the implementation level has to be resolved, especially regarding disaster management and climate change adaptation.*

3.3 Sectoral mainstreaming

3.3.1 Mainstreaming climate change into the forest policy of Tonga

While Tonga's forest resources are limited (approximately 5% of the landmass is covered with forests), they nevertheless have important functions for livelihood needs and reduction of vulnerability. The government of Tonga approached the FAO in 2006 for assistance in developing a National Forest Policy.





After extensive stakeholder consultation, a draft forest policy was developed in 2008. Climate change was mentioned only briefly in the draft and the aspects covering climate change focused on mitigation. Climate change adaptation had not been mainstreamed into the new policy.

The Pacific-German Regional Programme on Adaptation to Climate Change (funded by the German government and implemented by the German technical cooperation GTZ and SPC) was requested to assist Tonga with the adaptation of the land-based resource sectors (agriculture, forestry, land use planning). GTZ, FAO, the Department of Environment and the Forestry Department decided to delay finalizing forest policy for two months to mainstream climate change. Building on existing stakeholder consultation, a team of experts carried out another round of consultation, focusing only on climate change aspects. A reviewed draft of the policy was finalized in September 2009 with specific consideration of the

- forest functions leading to an increased resilience to climate change
- protection of shoreline and wetland vegetation
- compatibility with UNFCCC processes on reduced emissions from the forest sector
- adaptation of the forest sector through the promotion of adapted species and varieties
- improved pest and disease management.

Through successful intervention in policy development, the goal of mainstreaming climate change in the forest sector could be partially achieved in a fast and efficient way.

Success factors: *identifying ongoing policy and strategy development to use existing processes for mainstreaming; capitalizing on the experiences and qualities of donors in specific sectors; the involvement of the Department of Forestry and of the Department of Environment facilitated communication on climate change between the different departments.*

3.3.2 Strategic environmental assessment as a tool to integrate climate change adaptation in Viet Nam

Viet Nam is one of the developing countries that have legal provisions for Strategic Environmental Assessment (SEA) of regional and sectoral plans. Article 14 of the Law on Environmental Protection (LEP) of 2005 requires SEA for various categories of strategies and action plans related to socio-economic development at different

levels of government, including for land use, forest protection and development, development of natural resources and of river basins. The law requires that SEAs cover environmental, social and economic impacts. The legal frameworks and implementation guidance for SEA in Viet Nam is generally consistent with the OECD/DAC Good Practice Guidance document on Strategic Environmental Assessment (OECD, 2006). They provide a sound potential framework for integrating climate change considerations into sectoral and spatial development planning. While the SEA law does not entail detailed provisions for how to take climate change into account, the draft guidelines for general SEA application prepared by Viet Nam propose the consideration of climate change impacts and risks at different steps throughout the SEA procedure.

Viet Nam is rapidly accumulating experience in SEA, applied across a range of administrative levels and spatial scales. The following two cases demonstrate how SEA has helped to integrate climate change adaptation into a regional land-use plan and a sub-national sectoral plan.

SEA of land-use planning for the Nhon Trach district

An SEA was conducted in 2007/08 to integrate environmental issues into the land-use planning for the Nhon Trach district near Ho Chi Minh City. An assessment of the possible consequences of climate change for Nhon Trach district was made as part of the SEA. Accordingly, the SEA report proposes not only environmental protection solutions, but also measures for adapting to the expected climate change impacts, including estimated costs and implementation arrangements. The assessment of climate change impacts included analyses of possible temperature increase, precipitation changes, sea-level rise, and salt water intrusion. Proposed recommendations and measures for adapting to climate change included:

- Dike systems to prevent the invasion of seawater in the district should continue to be maintained and further developed.
- New varieties and species of crops should be identified, and an adaptation of cropping systems is needed in order to reduce the vulnerability of the agricultural system to climate change impacts.
- Tree coverage for the agricultural land converted to other uses, such as dwelling or construction land, should be at least 15% in order to contain soil erosion.
- The drainage system should be better maintained and extended in pace with urban development and environmental management of urban and industrial parks should be enhanced, including regular dredging, in order to avoid local flooding in the rainy season.
- Existing mangrove forests should continue to be preserved in the district in order to mitigate increasing hazards from high tides.

SEA of the Quang Nam province hydropower plan covering the Vu Gia-Thu Bon river basin

An SEA was conducted, with support from the Asian Development Bank (ADB), on the hydropower development plan for the Vu Gia-Thu Bon river basin (2006-2010). Climate change was considered as one of 15 key issues to be addressed by the SEA. However, some of the climate change concerns were not quantifiable as predictive, or spatial models for the study area, particularly for the time-frame of the study (20 years), were not available. The analysis of climate change impacts was therefore largely qualitative, based on extrapolation from available literature (mainly IPCC 2007). However, a range of important climate change impacts on the hydrology of the basin were identified: increased rainfall intensity and variability; increases in size of extreme flood flows, resulting in large sediment transport and sand excavation; sea-level rise affecting flooding in the seaward parts of the delta; increases in temperature and higher evapotranspiration leading to lower dry season minimal flows with effects on salinity intrusion.

The SEA concluded that the pace and scale of the proposed hydropower development was at an unsustainable level and recommended a number of fundamental principles to enhance the sustainability and equity of the hydro sector in the basin. One of these principles highlights ‘safe operations’, recommending the implementation of operational regimes and institutional arrangements to reduce droughts and floods and prepare for disasters; the need to incorporate climate change parameters in design and management is explicitly mentioned. In addition, the results from the climate change analysis gave support to some strategic recommendations regarding the need for (i) integrated river basin management; (ii) co-ordinated management and water release programmes for the 60 dams considered; (iii) needs for improved data collection on climate-related issues.

(Source: OECD. 2009. Integrating Climate Change Adaptation into Development Co-operation: Policy Guidance, p. 103, OECD Publishing, <http://dx.doi.org/10.1787/9789264054950-en>).

Success factors: *SEAs are mandatory by law; climate change is integrated into the SEA guidelines; capacities for conducting SEAs are increasing rapidly.*

3.4 Project level

3.4.1 Reducing climate vulnerability through micro-credit in Nicaragua

Located in the impoverished coffee-growing region of Matagalpa, Nicaragua, Fundación Denis Ernesto González López offers small loans to enable area farmers to purchase the necessities required to engage in subsistence farming activities. Access to capital represents a significant challenge for members of this rural community. Most families are unable to receive services from more established micro-finance institutions being too remote from the central area where most micro-finance institutions operate and lacking the essential collateral to obtain and repay loans.

While the Foundation provides these small loans as part of its sustainable agriculture and poverty alleviation work, it has found a way to connect these loans to its environmental conservation work as well. Out of concern over water scarcity and water quality as well as heightened soil erosion in the region, the Foundation actively encourages community members to practice soil conservation and reforestation on their private lands. As an additional incentive to encourage community members to participate in these conservation activities, the Foundation offers a lower interest rate to those farmers willing to participate in these environmentally beneficial agricultural practices. Fundación Denis Ernesto González’s environmental microcredit provides the essential capital that farmers need while also producing positive environmental benefits for the wider community.

(Source: Starobin. 2008. Sustainability at the crossroads of finance, social responsibility and the environment: A primer on microfinance for conservation practitioners. p. 22-23)

Lending conditions such as this may prove to be an innovative and effective way for reducing vulnerability in poor rural communities. In addition to helping farmers make investments that result in increased returns, the lending conditions also encourage risk management behaviour. Farmers took steps to protect themselves from erosion and landslides, which are common during heavy rainfall periods, and therefore secure livelihood activities over the longer term. While Fundación Denis Ernesto González may have viewed the loan condition as a simple means of reducing the risk of loan default, It effectively supported community-level adaptation to climate change.

(OECD 2009. p.169).

Success factor: *providing financial incentives to encourage farmers to engage in conservation activities, and climate change-related risk management strategies.*

3.5 Learning and information sharing

3.5.1 Learning from experiences: The environmental mainstreaming learning group approach: examples from Tanzania

An IIED-facilitated learning group of environment and development experts met in 2006, co-hosted by the Vice-President's Office and WWF-Tanzania. It addressed the ways in which the national development and poverty reduction plan (MKUKUTA) had included environmental issues. The group concluded that a 'planning gap' had been bridged, notably through:

- *The joint mandate* of the Vice-President's Office for both poverty reduction and environment
- *Outcome-based* development planning processes (as opposed to 'priority sectors'). This allowed environmental interests to show what they can contribute to all outcomes.
- A special environmental expenditure review being included in *public expenditure reviews* – asking questions of how environmental assets and hazards are being managed – which was a critical turning point in greatly improving the government budget for environment.
- An effective *donor coordination group* on environment, which worked well in government.

The learning group moved on to recommend ways in which to tackle 'investment, capacity and decentralisation gaps' to ensure that environment was acted on in development:

- *The environmental investment gap* – firstly requires the identification of priorities amongst the MKUKUTA's many targets, thus making up for severe under-investment in environmental assets for pro-poor growth and livelihoods.

This needs better economic assessment.

- *The environmental capacity gap* – the need especially for environmental information/monitoring systems and institutional development to enable environmental authorities and management bodies to meet new responsibilities for securing environmental services in support of development.
- *A power shift towards localisation and environment-dependent stakeholders* – the MKUKUTA conducted the biggest - ever national consultation on environmental issues: the challenge is how to maintain this momentum and empower people to take part in MKUKUTA implementation.

(IIED. 2009. The challenges of environmental mainstreaming: Experience of integrating environment into development institutions and decisions. p. 72).



Success factors: *effective donor coordination; strong mandate by the Vice President's Office.*

3.5.2 Exchange visits: United Republic of Tanzania to Uganda; Uganda to Rwanda

South-South cooperation in the form of study visits has yielded fresh perspectives and learning for participants. Officials from the United Republic of Tanzania looked to the Ugandan experience to inform their own poverty reduction strategy (MKUKUTA) development process. The officials made a visit to Uganda to learn how it revised its Poverty Eradication Action Plan, particularly the role of its Environment and Natural Resources Group. The United Republic of Tanzania built on this experience when establishing its own Environment Working Group. Later, a Uganda delegation went on a mission to Rwanda to learn from the latter's experience of mainstreaming poverty-environment issues into national development planning processes. Rwanda recently completed its Economic Development and Poverty Reduction Strategy, into which poverty-environment linkages were successfully mainstreamed. At the time of the visit, Uganda was beginning the process of reviewing its Poverty Eradication Action Plan. The following were among the key observations of the study visit:

- When the environment is treated as both an individual sector and a cross-cutting issue in the national planning strategy, there is a strong basis for integrating poverty- environment linkages throughout the strategy.
- An active role on the part of the Ministry of Finance and Economic Planning, the ministry leading the EDPRS process, was critical in integrating poverty-environment linkages into the plan across sectors.
- The process required persistent participation of environment technical officers at its various stages, including awareness-raising and capacity-building of sectors.
- High-level political support, strong institutions and a culture of law-abiding behaviour in Rwanda have been instrumental in promoting environmentally sustainable practices, as evidenced by successful enforcement of a ban on plastic bags.

(Sources: UNDP, UNEP and GM 2007; Government of Uganda 2008, quoted in UNDP/UNEP. 2009. Mainstreaming poverty-environment linkages into development planning: A handbook for practitioners. p. 70).

Success factors: *active part of key ministries; treating environment as a cross-sectoral mainstreaming issue and individual sector parallel.*



4 TOOLS FOR MAINSTREAMING

Even if climate change has a high priority on the political agenda and is taken into account in development plans and policies there is a need for tools to support decision-making at the planning and implementation level. If certain climate change impacts are expected, and their relevance acknowledged, the planners still need to analyse the influences on a certain project and which adaptation option would be preferable. Many tools are described in detail in the database of <http://www.environmental-mainstreaming.org>, and in IIED 2009; and GTZ 2009a. An overview of tools is provided in Annex III.

The tools are listed according to three categories. Chapter 4.1 describes tools developed by donor and implementation agencies to 'climate proof' their activities. In chapter 4.2, tools for the community and project level are presented while chapter 4.3 portrays tools for the gathering of climate information. The categories cannot be clearly separated because the tools might target different levels at the same time. Some of the tools developed by and for development organizations might be easily adapted for use by partner governments for their mainstreaming efforts (e.g. GTZs Climate Check; Chapter 4.1.1).

4.1 Tools to integrate climate change with development institutions

Apart from general and established tools for decision-making, information gathering and impact assessment (see last chapter) many development agencies and international organizations are developing their own tools to mainstream climate change into their organizations, programmes and strategies. Most of the tools guide the user through a check for climate change vulnerabilities of the agency's portfolio and /or specific projects and help with the identification of possible adaptation options. The following and other tools were presented at a workshop organized by GTZ, the UK Department for International Development (DFID), the US Agency for International Development (USAID) and the World Bank in May 2009 in Berlin (the descriptions of the tools are quoted from the workshop documentation: GTZ. 2009. International Workshop on Mainstreaming Adaptation to Climate Change).

4.1.1 Climate check (GTZ)

As part of an overall mainstreaming strategy, GTZ has developed a 'Climate Check'. The objectives of this instrument are:

- to systematically reduce risks and maximise chances induced by climate change for the impacts of development programmes.



- to systematically maximise contributions of cooperation programmes to reducing greenhouse gas emissions. The Climate Check contains two instruments:
- Climate proofing systematically analyses the risks that climate change poses to the sustainability of development projects and identifies adaptation strategies for adjusting projects.
- Emission saving analyses how projects can contribute to mitigating climate change and identifies alternative options and measures to maximise these contributions.

An overall guidance, sector specific material and a Practitioner’s manual on the use of climate change for effective adaptation are provided to support the users. The instrument is targeted to GTZ programmes but also can also used – with some modifications - for partners to integrate climate change aspects in their work. GTZ has started to use it in its advisory service. (GTZ 2009a. p. 31) (www.gtz.de/climate-check).

4.1.2 ORCHID: Opportunities and Risks of Climate Change and Disasters (UK Department for International Development)

ORCHID is a systematic climate risk management methodology which assesses the relevance of climate change and disaster risks to an organisation’s portfolio of development projects. The aim of ORCHID is to help development organisations and their partners to integrate risk reduction and adaptation processes into their programmes. It makes use of already available climate and vulnerability data and considers existing climate and disaster risk management practices. It employs multi-criteria analysis and cost benefit analysis to prioritise additional adaptation and disaster risk reduction options relevant for the programme. The ORCHID methodology has been piloted in DFID country offices in Bangladesh and India, and was adapted for use (as CRISP) for broader sector support in Kenya (GTZ 2009a. p. 25) (www.ids.ac.uk/climatechange/orchid).

4.1.3 Project screening tool for climate risks (Asian Development Bank)

The project screening tool is a simple checklist that helps project officers to consider climate risks and how to reduce them in project design and operations. By identifying four risk factor categories:

- Pre-determined impacts, risk factors, and assumptions
- Level of stakeholder engagement & risk assumptions
- Available knowledge on climate adaptation/ risk management
- Project design risk assumptions

The tool aims at generating project risk value and estimates the level of anticipated climate risk (high, moderate, low). (GTZ 2009a. p. 29)

4.1.4 Mainstreaming disaster risk reduction (Tearfund)

This tool encourages development organization to integrate disaster risk reduction into their planning and programming. Performance targets and indicators are developed to support organisations assess, measure and monitor their progress with mainstreaming. The targets/indicators cover six key areas of organizations' work:

1. Policy
2. Strategy
3. Geographical planning
4. Project cycle management
5. External relations
6. Institutional capacity

These are based on the 'Indicators of institutionalisation' identified within the Humanitarian Practice Network's Good Practice Review on disaster risk reduction. While the indicators and goals can provide a framework for monitoring and evaluation, the tool describes the different areas of mainstreaming and respective goals and therefore can be used for planning a mainstreaming intervention.

(Tearfund. 2009a. Mainstreaming disaster risk reduction).

4.1.5 UNDP's quality standards for integrating adaptation to climate change with development programming (CCA QS)

UNDP's CCA QS provides a comprehensive yet concise and structure framework to ensure that climate change risks and opportunities are adequately addressed in its development practice.

The guidance presents a framework for best practices to facilitate a successful incorporation of climate change adaptation concerns in development programs and projects. The guidance is useful to (i) assist UNDP staff in the identification of climate change risks and opportunities relevant to existing programmes and projects, and (ii) integrate adaptation into new programmes and projects. Project/programme planners and implementers are guided in the assessment of four 'quality standards':

- Identification of climate change risks to programmes and projects;
- Identification of risks that a programme or project will result in maladaptation;
- Identification of adaptation opportunities; and
- Identification and assessment of potential adaptation measures.

A set of questions guides the user in meeting each quality standard requirement, providing a robust guidance on the actions necessary to a comprehensive adaptation strategy. (GTZ 2009a. p. 23)

4.2 Tools to integrate climate change at a project or community level

4.2.1 Risk and Opportunity Analysis of AdapCC (GTZ/ Cafédirect)

A Risk and Opportunity Analysis (ROA) is a participatory process to identify adaptation measures for smallholder growers to changing climate conditions. The ROA process identifies physical and social vulnerabilities that can turn into disasters for smallholder growers in the case of an extreme weather event or if the regional climate changes. The methodology estimates possible losses and damage for smallholder families as a consequence of climate variability. Beyond looking at the effects of climate change, the ROA process aims to gain a better understanding of the key drivers which increase the risks and vulnerabilities of the pilot group as well. With an awareness of impacts and the ability to estimate the chances of climate change in a specific region, people can develop and prioritise adaptation measures to minimise the risks of negative impacts of climate change. ...

Carrying out these analyses requires participative mechanisms which allow producers to take the lead in the whole process. The implementation of the ROA process consists of eight steps:

1. Collection & evaluation of existing data
2. adjustment of methodology to local conditions
3. supplementing with regional data
4. participatory data collection
5. identification of adaptation needs
6. building supportive partnerships
7. prioritiation of adaptation measures
8. development of an adaptation strategy. (GTZ/ Cafédirect2009)

This participatory approach was tested in 2008 in four pilot projects in Peru, Nicaragua, Mexico and Kenya as a public-private partnership between Cafédirect plc, a British Fairtrade company and the German Technical Cooperation (GTZ) on behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ). More information can be found on the homepage www.adapcc.org.”

4.2.2 Coastal adaptation guidebook (USAID)

Adapting to coastal climate change: A guidebook for development planners (the guidebook) provides a detailed treatment of climate concerns in coastal areas. The Guidebook proposes an approach for assessing vulnerability to climate change and climate variability, developing and implementing adaptation options, and integrating options into programs, development plans, and projects at the national and local levels. This is known as a vulnerability and adaptation or V&A approach. ...

The tool provides a five step framework:

1. Assess vulnerability
2. Select course of action
3. Mainstream coastal Adaptation
4. Implement Adaptation
5. Evaluate adaptive management.

A vast range of adaptation options is analysed and described in the Annex of the guidebook, covering the priority areas *healthy ecosystems, infrastructure, diversification of livelihoods, human safety and overall planning and governance* (USAID 2009. p. viii).

4.2.3 CRiSTAL: Community-based risk screening tool – adaptation & livelihoods (International Institute for Sustainable Development)

CRiSTAL is a screening process designed to help project designers and managers integrate risk reduction and climate change adaptation into community-level projects. Specifically, it helps project designers and managers: (a) Understand the links between livelihoods and climate in their project areas; (b) Assess a project's impact on community-level adaptive capacity; and (c) Make project adjustments to improve its impact on adaptive capacity and reduce the vulnerability of communities to climate change. Users can follow this process through a Microsoft Excel interface or by reading the accompanying document (User's Manual). Training in CRiSTAL has been undertaken in Africa, Asia and Latin America and feedback from these sessions is being used to continually update and revise the tool.

(GTZ 2009a, p. 33) (<http://www.cristaltool.org/>)

4.2.4 Climate change and Environmental Degradation Risk and Adaptation assessment – CEDRA (Tearfund)

CEDRA helps agencies working in developing countries to access and understand the science of climate change and environmental degradation and compare this with local community experience of environmental change. Climate change cannot be addressed in isolation from environmental degradation as the two are very closely interlinked. Using CEDRA, agencies can prioritise which environmental hazards may pose a risk to their existing projects and project locations, enabling them to make decisions to adapt some projects, stop doing some projects or start new ones. Adaptation options are discussed, and decision-making tools are provided to help with planning responses to the hazards identified. CEDRA includes integrating disaster risk reduction responses as relevant existing forms of adaptation.

(GTZ 2009a, p. 40).

4.2.5 Strategic environmental assessment

Note: This is not a generic climate change adaptation tool but a common practice to integrate environmental concerns into project planning. Chapter 3.3.2 shows how strategic environmental assessment (SEA) can be used in the context of climate change adaptation.

Strategic Environmental Assessment (SEA) refers to a range of 'analytical and participatory approaches that aim to integrate environmental considerations into policies, plans and programmes and evaluate the inter-linkages with economic and social considerations' (OECD 2006). SEA provides a methodology not only for evaluating the impact of policies, plans and programmes



on the environment, but also for addressing the impact of environmental change on policies, plans and programmes. It may thus offer a useful framework for effectively mainstreaming climate change adaptation into policy-making processes at the national level. This may be particularly relevant in countries with legal requirements for SEA.

The Guidance on Applying SEA (OECD, 2006) suggests four generic steps for the SEA process: (i) establish the context; (ii) implement the SEA; (iii) inform/influence decision-making; and (iv) monitor and evaluate. Each of these steps can be tailored as needed to include the consideration of climate change concerns and facilitate the integration of adaptation measures into national-level policies, plans and programmes.

The initial step 'establishing the context' could be used to assess whether and how the policies, plans and programmes under consideration will be affected by climate change. Examples of questions that could be asked are:

'What are the main climate risks facing the country, region or sectors?'

'Which key national development priorities, geographical areas, and/or sectors are likely to be particularly affected by climate change?'

'Has climate change been considered in the national policies, plans and programmes of interest?' and

'Is there a national climate change strategy in place that the policies, plans and programmes would need to be fully aligned to and consistent with?'

This first step would help to identify whether a climate lens will have to be applied in more detail, or whether no further climate change analysis will be needed.

Participatory approaches are an important element of SEA. Accordingly, a potential key result of an SEA may be the identification of groups that are particularly vulnerable to climate change risks. The SEA process may facilitate giving the most vulnerable a voice. This will in turn help policy makers understand the synergies between climate change adaptation, economic growth and poverty reduction.

The standard SEA approach focuses on potential interrelations between concrete policies, plans and programmes and



environmental changes by looking at the projected future evolution of key variables, like trade patterns, commodity prices, population growth, migration flows, but also climatic factors. There are, however, large uncertainties as regards the evolution of these variables over the time-span and geographic scales covered by national strategies and policies. Therefore, an institutions-centred SEA approach may be best suited for mainstreaming climate change adaptation into national-level policy making. This approach focuses not so much on projected future developments but rather on the capability of the institutional and policy framework to respond to uncertain or unexpected environmental risks. It offers a tool to adjust the national policy formulation processes, systems and procedures to be responsive to the challenges and risks related to climate change.

As regards the analytical work to be undertaken as part of the SEA, the institutions-centred approach suggests to include an in-depth analysis of the institutions involved in the design and implementation of possible adaptation measures. This should include a political economy analysis, in order to better understand the goals, values, behaviours, and incentives of associated stakeholders. It should also examine the horizontal (intersectoral) and vertical (across federal, state, and municipal levels) co-ordination mechanisms within a government to identify, at the earliest possible stage, potential hurdles to mainstreaming climate change adaptation.

Another key objective of institutions-centred SEAs is to enhance social learning and continuous improvement of policy design and implementation. To this end, it suggests to establish monitoring and evaluation frameworks that continuously re-examine the policy direction and priorities. Such a social learning process will enable attention to be directed to emerging new risks such as those resulting from climate change. It will allow for the timely recognition of adaptation needs in the policy formulation process.

A pilot programme has been launched by the World Bank in 2008 where institutions-centered SEAs are applied to reform processes in a variety of different sectors (forestry, mining, transport and urban development) and countries (Kenya, Sierra Leone, Guinea, Liberia, Malawi, Bangladesh, Pakistan, and China). Evaluation of this pilot programme in the coming years will show how this approach can contribute to the mainstreaming of climate change adaptation into national policies (Source: OECD. 2009. Integrating Climate Change Adaptation into Development Co-operation: Policy Guidance, p. 80, OECD Publishing, <http://dx.doi.org/10.1787/9789264054950-en>).

4.3 Information tools

4.3.1 Climate Change Data Portal (World Bank)

The Climate Change Data Portal provides an entry point for access to climate related data and tools. The Portal provides access to comprehensive global and country data information related to climate change and development. The portal intends to serve as a common platform to collect, integrate, and display climate change relevant information at the global scale.

(GTZ 2009a, p. 15). (<http://www.worldbank.org/climateportal>)

4.3.2 Cl:grasp: Climate Impacts: Global & Regional Adaptation Support Platform (GTZ & PIK)

An interactive information platform will be developed, initially in some pilot countries. The platform will contain 3 main information layers, compiled and collected in a user friendly manner:

- Climate change parameter (like temperature, precipitation, wind, etc.)
- Physical and socio-economic impacts (e.g. sea-level rise, changes in agricultural production, losses due to extreme events, etc.)
- Adaptation options and experiences.

Where information on impacts is lacking, it will be complemented by research for the most important sectors. All information will be freely available in an internet platform visualised mainly through maps. Other additional information sources like links to relevant literature, etc. will be added. Using the latest Web 2.0 applications adaptation experts and practitioners can furthermore feed in their experiences through pre-structured web forms and geo-tags, which will undergo quality control mechanisms. Cl:grasp is funded by the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety. (GTZ 2009a. p. 17)

4.3.3 weADAPT (a suite of tools referred to as a platform) (Stockholm Environment Institute (SEI) e.a.)

weADAPT is the overall brand for a set of activities, tools and services developed through collaboration between the Stockholm Environment Institute (SEI), the University of Cape Town and an expanding number of other partners. Tools in the weADAPT set include:

Climate Change Explorer (CCx) is a software tool that enables the user to access and use local climate data. The CCx is essentially a tool for assessing climate risks and enables non-expert users to explore the range of plausible climate futures to inform robust adaptation decisions. CCx is available for download and currently provides statistically downscaled projections for over 1000 stations in Africa and 300 in Asia from 10 Global Circulation Models. The tool allows for comparisons to be made between the current climate and the envelope of future climate projections, and is designed not just for use by climatologists but decision-makers, as well. Guidance is provided within the tool to help the user interpret what the data is showing and its relevance for making adaptation decisions, including tackling the issue of uncertainty. The material provided within the tool is supported by additional information available on wikiADAPT, a web 2.0 tool for dynamically developing guidance material, documenting and sharing experiences in undertaking adaptation research, practice and policy-making, publicly open for both viewing and contributing.

Newer components of weADAPT include an Adaptation Layer in Google Earth that takes a variety of information relevant to climate adaptation in a specific location (including videos and graphics) and makes it easy to find. Also under development is the Adaptation Decision Explorer, a decision support tool to screen adaptation options. (GTZ 2009a. p. 17). (www.weADAPT.org).

4.3.4 PRECIS: Providing REgional Climates for Impacts Studies (Met Office Hadley Centre)

PRECIS is based on the Hadley Centre's regional climate modelling system. It has been ported to run on a PC (under Linux) with a simple user interface, so that experiments can easily be set up over any region.

- PRECIS incorporates information on large-scale climate changes from 20 global climate models
- PRECIS can provide detailed climate information (at 25 or 50 km resolution) for any region of the world including on the climate of the recent past (1957–2004).
- PRECIS data-processing and visualisation tools enable manipulation, statistical processing and application of data.
- PRECIS projects provide scientific and technical support for climate scenario generation and application.

PRECIS was developed in order to help generate high-resolution climate change information for as many regions of the world as possible. The intention is to make the tool freely available to groups of developing countries in order that they may develop climate change scenarios at national centres of excellence, simultaneously building capacity and drawing on local climatological expertise. These scenarios can be used in impact, vulnerability and adaptation studies. (GTZ 2009a. p. 35) (<http://precis.metoffice.com/>)

4.3.5 Policy tool for climate change vulnerability assessment (Japan International Cooperation Agency)

The Japan International Cooperation Agency (JICA) Policy tool for climate change vulnerability assessment, aims to facilitate identifying policy options for wise localised adaptation measures against various climate risks and climate vulnerability through well-designed analysis framework. Combined datasets of high resolution, localised climate change simulation and existing weather data and information will be used to conduct detailed analysis for identifying development strategies, policies, plans and project proposals, which are based on cost and benefit analysis (CBA) to provide suitable options for policy makers, project officers and development partners. This approach has been applied in 'Study on Climate Change Adaptation in Asian Coastal Mega Cities' conducted by JICA, the World Bank and ADB, successfully demonstrating its usefulness and reliability as a policy analysis framework.

(GTZ 2009a, p. 37).



5 LESSONS LEARNED AND KEY MESSAGES

5.1 Constraints on successful mainstreaming

Research in the Philippines, Melanesia and other countries identified some constraints which hinder the mainstreaming of climate change. The most critical constraints are:

- Lack of political will (which includes the setting of other priorities; climate change is not seen as important compared with other short term issues like poverty alleviation).
- Lack of understanding and awareness of the implications and threats of climate change.
- Lack of data and information.
- Lack of skills (including lack of capacity to implement mainstreaming and limited ability of government technocrats to use science and economic tools to convince politicians and policy makers to appreciate the need to support mitigation and adaptation measures)

Mainstreaming can work only if it is not considered to oppose national goals and the development paradigm, but rather as a means to achieve them (IIED 2009: 37; SPREP 2009: 47; World Agroforestry Centre 2008).



5.2 Recommendations for successful mainstreaming

Most publications about mainstreaming provide some recommendations on how to achieve successful mainstreaming. The following list is based on the recommendations of Tearfund 2006, p. 3–4, in combination with the success factors of the best practices (see Chapter 3) and other sources (IIED 2009; BMU 2003; UNEP/UNDP n.d).

5.2.1 Information

- Governments should engage more actively with the scientific community, who in turn must be encouraged to provide easily accessible climate risk information.
- Provide country-specific evidence: governments need to gather evidence of the contribution of environment to economic development, reducing vulnerability to climate change, and pro-poor growth in a manner relevant to the key goals and priorities of PRSPs or MDG strategies, thus making the case for mainstreaming. It is critical to strengthen the national data collection, and analysis capacity.
- Information needs of different actors should be considered and communications tailored more specifically to users, including the development community.
- Information, education, and training programmes for government officials are essential to raise the awareness in different governmental organizations of environmental protection and sustainable development. Mutual understanding can be hastened by ‘rotating’ officials among ministries.
- Monitoring and evaluation systems should be created and used to improve mainstreaming performance.

5.2.2 Organizational structure and stakeholder inclusion

- A multi-stakeholder coordination committee should be established to manage national adaptation strategies, chaired by a senior minister such as a member of the Prime Minister’s office, ministry of finance or ministry of local development.
- Successful climate change mainstreaming requires a strong cross-sectoral central unit working on climate change issues, in order to:
 - o formulate environmental protection requirements;
 - o provide core competence and expertise, as well as institutional memory;
 - o maintain strong contacts between all units, stimulate and facilitate information exchanges, operational learning and training, and peer reviews (main-taining the knowledge network);
 - o evaluate experience, document and disseminate best practice, and fulfil core reporting requirements, and
 - o act as a contact point for similar units in other international organizations.

- Governments need to recognize that the capacity of the environment agency should be taken into account in deciding how best to focus mainstreaming efforts, because it may lack the experience or resources to address the contribution of environment to growth and poverty reduction.
- Regulatory issues should be considered from the start of the mainstreaming process.
- The capacity of existing poverty reduction and risk reduction mechanisms should be expanded to incorporate climate adaptation where possible.
- Governments should ensure that any national adaptation strategy is consistent with existing policy criteria, development objectives and management structures.
- Policy-makers should look for policies that address current vulnerabilities and development needs, as well as potential climate risks.
- Actions to address vulnerability to climate change should be pursued through social development, service provision and improved natural resource management practices.
- A broad range of stakeholders should be involved in climate change policy-making, including civil society, sectoral departments and senior policy-makers.
- Often a 'champion' is needed within the planning, finance, or environment agency who gives visibility to poverty-environment issues and brings other government actors together in order to make a serious effort to mainstream environment issues, so that these can become part of the specific government machinery.
- The commitment of the planning or finance team is needed. Mainstreaming efforts need to be centred on the agency responsible for the PRSP or MDG strategy or on the finance ministry responsible for the budget process, to influence planning, and the sector and local-level implementation processes that follow.
- Climate change adaptation should be informed by successful ground-level experiences in vulnerability reduction.
- NGOs should play a dominant role in building awareness and capacity at the local level.

5.2.3 Incentives

- Donors should provide incentives for developing country governments to take particular adaptation actions, appropriate to local contexts.
- The economic case for different adaptation options should be communicated widely. This is valid for all levels from the high-level policy maker to the farmer.
- A risk-based approach to adaptation should be adopted, informed by bottom-up experiences of vulnerability and existing responses.
- Approaches to disaster risk reduction and climate change adaptation should be merged in a single framework, using shared tools.

5.2.4 Finances

- Adaptation should be reflected in the government budgets of different sectors in developing countries. Securing sufficient resources for ministries to implement mainstreaming is a significant challenge. The economic arguments for adaptation to climate change should be communicated widely, to support the inclusion of adaptation in the budget allocations.
- Funding for adaptation should be increased well beyond that currently available via the Global Environmental Facility and other adaptation-specific bilateral aid.
- Current international adaptation resources should be used to leverage maximum adaptation results within existing development activities and investments.
- Donors should support research and monitoring and evaluation of the mainstreaming process, to develop understanding of what contributes to effective enabling environments.

5.2.5 Process

- Find the right entry point: the key government agencies and other stakeholders need to come together around a strategic 'entry-point' in the policy-making process – such as a PRSP review, the formation of a new PRSP or MDG-based national development strategy, or the start of the budget allocation process.
- Use existing tools and processes as far as possible – that is, existing national, sectoral or local analytical/planning processes – rather than attempt to run special climate change processes. If e.g. a SEA is mandatory for certain projects in a country, try to include climate change aspects into the SEA instead of starting another process for climate change adaptation only.



6 KEY DOCUMENTS AND LITERATURE

IIED. 2009. The challenges of environmental mainstreaming: Experience of integrating environment into development institutions and decisions.

<http://www.iied.org/pubs/pdfs/17504IIED.pdf> Retrieved from the internet 15 August 2010

This guide to environmental mainstreaming describes the importance and context of integrating environmental issues with organizational structures and decision-making. It describes constraints and entry points for interventions and provides a step-by-step model and a variety of tools for effective mainstreaming.

OECD. 2009. Integrating Climate Change Adaptation into Development Co-operation: Policy Guidance, p. 80, OECD Publishing,. <http://www.oecd.org/dataoecd/45/45/44887764.pdf> Retrieved from the internet 27 August 2010.

Detailed guidance on mainstreaming climate change at a national, sectoral, project and local level; key actors and processes are identified, and the necessary steps for mainstreaming presented. Case studies and tools are included.

ProVention. 2007. Tools for mainstreaming disaster risk reduction: Guidance notes for development organisations. http://www.proventionconsortium.org/themes/default/pdfs/tools_for_mainstreaming_DRR.pdf Retrieved from the internet 18 August 2010.

A collection of 14 guidance notes that focus on mainstreaming disaster risk reduction, and cover topics such as poverty reduction strategies, project cycle management, environmental assessment and budget support.

World Bank. 2009. Mainstreaming Adaptation to Climate Change in Agriculture and Natural Resources Management Projects. <http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/ENVIRONMENT/EXTTOOLKIT3/0..menuPK:3646378~pagePK:64168427~piPK:64168435~theSitePK:3646251,00.html> Retrieved from the internet 19 August 2010.

A set of eight guidance notes organized around a typical project cycle, covering the identification of key institutions, engagement of local communities, climate risk assessment, strengthening of institutional capacity and policy frameworks, identification of adaptation measures, economic analysis for adaptation and monitoring and evaluation.

Tearfund. 2009a. Mainstreaming disaster risk reduction. <http://www.unisdr.org/HFdialogue/download/tp2-Tearfund-Mainstreaming-drr.pdf> Retrieved from the internet 19 August 2010.

Collection of goals and indicators for mainstreaming disaster risk reduction into development organizations. The publication is not only useful for monitoring and evaluation purposes but also provides insights which areas should be taken into account for mainstreaming.

Asian Development Bank. 2005. Climate proofing. A risk based approach to adaptation. <http://www.adb.org/Documents/Reports/Climate-Proofing/climate-proofing.pdf> Retrieved from the internet 19 August 2010.

Six Pacific case studies on how the ADB supported the climate proofing of development projects. The publication provides detailed insights on how mainstreaming can actually work on the ground. Following the risk-based approach, examples of mainstreaming of infrastructure projects, coastal communities, and development strategies in FSM and the Cook Islands are presented.

UNEP/UNDP. n.d. Guidance note on mainstreaming environment into national development planning.

<http://www.unpei.org/PDF/Guidance-Note-Mainstreaming-eng.pdf> Retrieved from the internet 19 August 2010.

Concise recommendations for integrating environment and poverty reduction. No specific tools or case studies but a good overview of the major steps and topics.

UNDP/UNEP. 2009. Mainstreaming poverty-environment linkages into development planning:

A handbook for practitioners.

<http://www.unpei.org/PDF/PEI-full-handbook.pdf> Retrieved from the internet 18 August 2010.

Handbook about the mainstreaming of environment featuring useful examples and guidance through the different steps of the mainstreaming process. Focus on mainstreaming into national planning.

BMU. 2003. Conclusions of the international workshop on 'Best practices for integration of environmental protection requirements into other policies'.

http://ecologic.eu/download/projekte/900-949/907/907_conclusions_en.PDF Retrieved from the internet 19 August 2010.

Summary of the outcomes and recommendations of a workshop about best practices of environmental mainstreaming. No details of the best practices are given but the summary provides recommendations for core issues of mainstreaming processes.

USAID. 2009. Adapting to coastal climate change. A guidebook for development planners.

http://www.usaid.gov/our_work/cross-cutting_programs/water/docs/coastal_adaptation/adapting_to_coastal_climate_change.pdf Retrieved from the internet 19 August 2010.

Comprehensive guide to adaptation on a project and community level, focusing strongly on coastal areas. The guide covers mainstreaming entry points but also describes adaptation options.

UNDP. 2010. Screening tools and guidelines to support the mainstreaming of climate change adaptation into development assistance: A stocktaking report. UNDP: New York.

http://content.undp.org/go/cms-service/download/asset/?asset_id=2450397 Retrieved from the internet 19 August 2010.

Summary and comparison of existing tools and guidelines used by development agencies to mainstream climate change adaptation and to screen climate risks.

Other sources cited:

EIU (Economic Intelligence Unit). 2006. Country Profile: Rwanda

Government of Uganda. 2008. NEMA/UNEP Study Visit to Rwanda 28–29 January 2008: Study Visit Report. Kampala: Government of Uganda.

GTZ. 2008. Crosscutting issues in district development planning. A methodology for integration based on promising practices for HIV and disaster risk management in Lesotho and Mozambique.

<http://www2.gtz.de/dokumente/bib/gtz2008-0104en-development-planning.pdf> Retrieved from the internet 19 August 2010.

GTZ. 2009a. International workshop on mainstreaming adaptation to climate change.

<http://www.gtz.de/de/dokumente/en-climate-mainstreaming-adaptation-workshop-report.pdf> Retrieved from the internet 19 August 2010.

GTZ/ Cafédirect. 2009. Risk and opportunity analysis of AdapCC.

http://www.adapcc.org/download/gtz_Topicsheet-ROA_en.pdf Retrieved from the internet 19 August 2010.

Huq S, Rahman A, Konate M, Sokona Y and Reid H. 2003. Mainstreaming Adaptation to Climate Change in Least Developed Countries. London: IIED.

IPCC. 2007. Climate Change 2007: Impacts, Adaptation and Vulnerability , Working Group II Contribution to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, Chapter 17: Assessment of Adaptation Practices, Options, Constraints and Capacity , Cambridge University Press, Cambridge, pp. 717-743.

OECD. 2006. Applying Strategic Environmental Assessment: Good Practice Guidance for Development Co-operation, DAC Guidelines and Reference Series, OECD, Paris.

SPREP. 2009. Institutional capacity within Melanesian countries to effectively respond to climate change impacts, with a focus on Vanuatu and the Solomon Islands.

http://www2.bishopmuseum.org/ccbm/Areas/Melanesia/Papers/InstitutionalCapacity_Wickham.pdf Retrieved from the internet 18 August 2010.

Starobin, S. 2008. Sustainability at the crossroads of finance, social responsibility and the environment: A primer on microfinance for conservation practitioners, Nicholas School of the Environment and Earth Sciences, Duke University, Durham, North Carolina, <http://hdl.handle.net/10161/483> Retrieved from the internet 18 August 2010.

Tearfund/IDS. 2006. Overcoming the barriers. Mainstreaming climate change adaptation.

<http://www.tearfund.org/webdocs/website/Campaigning/Policy%20and%20research/Overcoming%20the%20barriers%20briefing%20paper.pdf> Retrieved from the internet 19 August 2010.

Tearfund. 2009b. Climate change and environmental degradation risk and adaptation assessment.

<http://tilz.tearfund.org/webdocs/Tilz/Topics/Environmental%20Sustainability/CEDRA%20D5.pdf> Retrieved from the internet 19 August 2010.

UNDP. 2004. Continuing the adaptation process. Adaptation policy framework Chapter 9.

<http://www.undp.org/GEF/documents/publications/apf-technical-paper09.pdf> Retrieved from the internet 19 August 2010.

UNDP (United Nations Development Programme), UNEP (United Nations Environment Programme) and GM (Global Mechanism of UNCED). 2007. Generic Guidelines for Mainstreaming Environment with a Particular Focus on Sustainable Land Management. Draft. New York: UNDP.

UNDP-UNEP PEI (Poverty-Environment Initiative). 2008a. Environment, Climate Change and the MDGs: Reshaping the Development Agenda – A Poverty Environment Partnership Event in Support of the UN High Level Event on the MDGs. Nairobi, Kenya: UNEP.

UNFCCC. 2008. Integrating practices, tools and systems for climate risk assessment and management and strategies for disaster risk reduction into national policies and programmes.

<http://unfccc.int/resource/docs/2008/tp/04.pdf> Retrieved from the internet 19 August 2010.

World Agroforestry Centre. 2008. Mainstreaming Climate Change in the Philippines.

<http://www.worldagroforestry.org:8090/downloads/publications/PDFS/wp08034.pdf> Retrieved from the internet 19 August 2010.

World Bank. 2004. Cities, Seas & Storms: Managing Change in the Pacific Islands Economies. <http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/EASTASIAPACIFICEXT/PACIFICISLANDSEXTN/0,,contentMDK:20218394~pagePK:141137~piPK:217854~theSitePK:441883,00.html> Retrieved from the Internet 3 June 2010.



ANNEXES

Annex I: National Guidelines for Mainstreaming Adaptation to Climate Change in the Cook Islands. Guidelines Relating to the Principles Underpinning the Mainstreaming of Adaptation

Guideline 1 Manage climate risks as an integral part of sustainable development. Climate change is largely the result of greenhouse gas emissions associated with human activities. The latter are driven by socioeconomic development patterns characterized by economic growth, technology uptake and application, population growth and migration, and adjustments in governance. In turn, these socioeconomic development patterns influence vulnerability to climate change, as well as the human capacity for mitigation and adaptation. The cycle is completed when climate change impacts on human and natural systems, to influence socioeconomic development patterns and, thereby, greenhouse gas emissions. The artificial separation of these activities results in missed opportunities for synergies, unrecognized and undesirable trade-offs, and mutual interference in ensuring successful outcomes. The benefits arising from integrating climate policy into wider development policies can be greater than the sum of concurrent but independent policy initiatives. Effective management of the risks to natural and human systems that arise from climate variability and change, and their integration with planning for sustainable development, gives rise to additional guidelines. Policy making, planning practices, and development activities should ensure that all future generations will be able to enjoy every important aspect of life, including peace and security, a healthy environment, a small risk of preventable catastrophes (including those related to climate variability and change), conservation of knowledge, stable governance, a good life for children, and opportunities for living.

Guideline 2 Ensure intergenerational equity related to climate risks. Any climate-related risks that present generations may find unacceptable should not be imposed on future generations.

Guideline 3 Adopt a coordinated, integrated, and long-term approach to adaptation. Successful adaptation to climate variability and change requires a programmatic approach that provides institutional and operational support for individual projects; this will help minimize the limitations resulting from the short-term and narrow nature of projects, thus reducing administrative and related burdens and giving much more control over the direction taken by individual projects. The approach also increases the possibility of sustaining the benefits of a project even after funding has ceased, and expedites the proposal development and approval processes, as well as implementation.

Guideline 4 Achieve the full potential of partnerships. Adaptation activities should be based on cooperation to bring about desired changes, from the bottom up as well as from the top down; this calls for enduring partnerships at all stages of the adaptation process, ensuring active and equitable participation of private and public stakeholders, including business, legal, financial, and other stakeholders.

Guideline 5 Adaptation should exploit the potential of sustainable technology transfer; use of inadequate, unsustainable, or unsafe technologies for adaptation must be avoided. Technology recipients should be able to identify and select technologies that are appropriate to their actual needs, circumstances, and capacities and are classed as ‘sustainable technologies’— i.e., environmentally sound, economically viable, and socially acceptable. For example, some approaches to coastal protection have proven to be inadequate (e.g., weight of rocks making up a breakwater is inadequate relative to the energy of the significant wave), unsustainable (e.g., sea walls often accelerate erosion for adjacent, unprotected areas of the coast) or unsafe (e.g., a breakwater may, in some instances, exacerbate the volume and speed of seawater overtopping the foreshore area).

Guideline 6 Base decisions on credible, comparable, and objective information. Ideally, the measurements and assessments required to provide this information will be made using internationally recognized, but locally adapted, methodologies and tools, thereby helping to ensure comparability between information collected by different assessors.

Guideline 7 Maximize the use of existing information and management systems. Wherever possible and practical, make use of existing management systems. This may well require additional initial effort to source and harmonize dispersed and disparate sets of information, but is likely to result in a strengthening of existing information management systems as opposed to their.

Guideline 8 Strengthen and utilize in-country expertise in the technical and policy dimensions of adaptation to climate change.

Guideline 9 Wherever possible and practical, strengthen and maximize use of existing regulations, codes, tools, and regulatory instruments to guide selection and facilitate implementation of adaptation measures: examples of this process include environmental impact assessments and building codes. This is likely to result in a strengthening of existing tools and regulations, rather than weakening them through confusion and inadequate enforcement.

Guidelines Relating to Enhancing the Enabling Environment for Adaptation

Guideline 10 Climate proof relevant legislation and regulations. The enabling environment for adaptation is enhanced when legislation and regulations that facilitate adaptation are introduced and strengthened, and also when the compliance monitoring and enforcement capabilities of relevant regulatory agencies are improved.

Guideline 11 Strengthen institutions to support the climate proofing of development. Organize and strengthen institutions in ways that

- enhance communication between climate risk assessors and adaptation policy makers and implementers;
- reduce the likelihood of conflict and duplication of effort when managing climate-related risks;
- lessen the chances of mistrust and misunderstanding between decision and policy makers and other stakeholders in adaptation activities; and
- overall, help to provide consistent, defensible and useful advice to policy and decision makers with respect to adaptation priorities and practices.

Guideline 12 Ensure that macroeconomic policies and conditions favor climate proofing. Macroeconomic conditions that favor successful adaptation activities include those that foster economic transparency. Such conditions are needed in order to ensure that climate-related risks are not masked or compensated for by hidden subsidies and thereby transferred to the wrong parties. Involvement of the private sector in adaptation (e.g., investors and other players in the finance sector) will be encouraged by macroeconomic conditions that include low inflation, stable and realistic exchange and interest rates, pricing that reflects the true (marginal and fully internalized) costs of materials, energy, labor and other inputs; deregulation; free movement of capital; operation of competitive markets; open trade policies, and transparent foreign investment policies.

Guideline 13 Ensure favorable access to affordable financing for climate-proofed development initiatives. Address the present reluctance of banks and other lending institutions to finance adaptation activities, due to the perception that they involve longer-term projects that have high levels of risk. Help reduce this barrier by promoting institutions, arrangements, and mechanisms that can provide innovative financing, including microfinance, green finance, secured loans, leasing arrangements, and public-private partnerships, thereby allowing adaptation to proceed without government intervention.

Guidelines Relating to the Process of Mainstreaming Adaptation

Guideline 14 Document the relevant major risks to the economy and society resulting from climate variability and change (including extreme events), characterizing these in terms of their probabilities of occurrence, associated economic and social consequences, and degree that they require sustained attention.

Guideline 15 Replicate the knowledge, motivation, and skills that facilitate successful adaptation. Identify the motivations that drive various stakeholders to engage in the adaptation process, and replicate these motivations in other players, through education, training, and other initiatives.

Guideline 16 Enhance the capacity for continuous adaptation. Adaptive capacity is a complex and a dynamic mix of social, economic, technological, biophysical, and political conditions that determines the capacity of a system to adapt. These factors vary over time, location, and sector. The main features of communities, countries, and regions that determine their adaptive capacity include economic wealth, technology, information and skills, infrastructure, institutions, and equity. By addressing these factors, it is possible to enhance adaptive capacity.

Guideline 17 Ensure that climate-proofing activities complement other development initiatives. Emphasis must be placed on coordinating activities, taking advantage of synergies, minimizing duplication, and avoiding redundancies. This will help ensure that climate-proofing activities complement other development efforts. Priority should be given to adaptation activities that deliver tangible and visible benefits, rather than on exploratory studies—i.e., emphasis should be on activities that deliver outputs and outcomes that are of at least equal relevance and value to those provided by mainline ministries. This can help offset the fact that climate change is often perceived as a longer-term issue, while other challenges, including food security, water supply, sanitation, education, and health care, require more immediate attention.

Guideline 18 Adaptation outcomes are a process of continual improvement. This necessitates a commitment to, and ongoing practice of, monitoring, reviewing, and strengthening adaptation activities; methods used should emphasize transparency, consistency and accountability, as well as fostering continued improvement in the efficiency with which outcomes are delivered and in their contributions to sustainable national development.

Source: Asian Development Bank. 2005. Climate proofing. A risk based approach to adaptation. Annex 4.

Annex II: Vanuatu National Advisory Committee on Climate Change. Terms of Reference

The National Advisory Committee on Climate Change (NACCC) is a multi-disciplinary team that draws its membership from different government agencies, civil society and other relevant stakeholder. Its terms of reference include:

- Provision of operational directives to the NACCC Secretariat;
- Make informed consensus decisions on issues arising from the Climate Change Convention, Kyoto Protocol and any future Plans for Action as decided by the Conferences of the Parties;
- Facilitating political inclusion in the national climate change process, particularly to encourage appropriate policy development to enable effective national responses to climate change;
- Coordinate International Climate Change negotiations, ensuring consistency, relevancy and real benefits to Vanuatu in participation;
- Inform respective departments on Climate Change issues, particularly consideration of climate change issues in sectoral policies and other department plans;
- Monitor and facilitate the work of the Greenhouse Gas Inventory Network, detailed in Chapter 6 of the National Climate Change Policy, and including any relevant data collection and information systems;
- Ensure that the Department responsible for settling the financial contributions of Vanuatu to the UNFCCC is accorded;
- Recognise and encourage human resource development in the field of scientific research and development, including the formulations of projects and joint projects, particularly in the context of Climate Change;
- Establish and coordinate the work of the National Group of Experts;

- Ensure appropriate climate change act/legislation is enacted; and
- Facilitate access to funding for the national climate change effort.

Source: SPREP 2009: Institutional capacity in Melanesian countries. Annex 3

Annex III: Overview of Tools for Mainstreaming

Approaches/tools for environmental mainstreaming

(A) PROVIDING INFORMATION

Impact assessment & strategic analysis

Environmental impact assessment
 Integrated environmental assessment
 Integrated impact assessment
 Life cycle assessment)
 Poverty & social impact assessment
 Regulatory impact assessment (environmental, fiscal)
 Social impact assessment
 Strategic environmental assessment
 Sustainability appraisal

Economic and financial assessment

Public environmental expenditure review
 Budgeting
 Cost benefit analysis
 Eco-budget
 Economic analysis (general)
 Green/Natural resource accounting
 Valuation (resource, natural resource, economic, goods & services)

Social surveys and assessments

Household surveys
 Participatory poverty assessment
 Spatial data analysis
 Well-being health happiness measurement

Spatial assessment

Geographic information system
 Geological survey
 Resource maps
 Zoning plans

Monitoring and evaluation

Community-based monitoring
 Corporate social responsibility
 Environmental quality monitoring
 Environmental audits
 Indicators
 Monitoring (general)
 Multi-sectoral monitoring

(B) PLANNING & ORGANISATION

Plans & policies

Business plans for protected areas
 (National) sustainable development strategies
 Conservation plans
 Environmental (action) plans
 Fiscal policy (e.g. taxes, incentives, etc)
 Integrated development plans
 Internal environmental policy
 National & District Environmental Action Plans
 Physical & land use planning
 Strategic planning (general)
 Spatial development framework

Legal

Legal tools (general)
 Public interest litigation
 Regulatory frameworks/guidelines

Policy tools

Policy analysis
 Policy guidelines

Organisation-specific

Corporate policy & sustainability reporting
 In-house project & programme appraisals
 Planning schedule
 Work plans

Visioning

Collective/community visioning
 Natural step
 Scenarios

Other

Certification
 Charters & codes of practice
 Cleaner production
 Eco-management & audit system
 Environmental management system
 Gantt tables
 Internal meetings
 ISO standards

State of environment report

Other

- Cleaner production in-plant assessment
- Pre-feasibility studies
- Thematic studies (e.g. noise pollution, emissions)

- Life cycle analysis
- Multiple decision criteria analysis
- Performance standards, loan/grant conditions
- Standards & licensing
- Sustainable livelihoods

C) DELIBERATION & ENGAGEMENT

Participation & citizens' action

- Community-based natural resource management
- Community meetings
- Community mobilisation
- Conferences
- Eco clubs
- Environmental tribunal
- Internal meetings
- Lobbying

- Meetings with external actors
- Multi-stakeholder consultation/processes
- National councils for sustainable development
- Participatory mapping
- Participatory planning
- Participatory rural appraisal
- Partnerships (e.g. citizen-city administration)
- Private-public committees
- Public consultation
- Public hearing
- Public participation (general)
- Reward systems/motivation/funds augmentation
- Stakeholder mapping
- Workshops & seminars

Creating demand & awareness

- Awareness workshops
- Media (campaigns)
- Negotiations
- Practical examples
- Public online databases
- Right to Information Act

(D) MANAGEMENT

Management planning & control

- Alternative dispute resolution
- Conflict management/resolution
- Energy audits
- Environmental compliance audits
- Environmental management plans & frameworks
- Integrated environmental management
- Occupational health & safety audits
- Performance indicators & benchmarks
- Risk assessment

Market-based tools

- Business supply chains
- Eco-labelling
- Green procurement
- Payments for environmental services
- Institutional governance (general)
- Environmental standards & regulations

(F) OTHER APPROACHES

- Capacity-building (general)
- Capacity-building workshops/seminars
- Collaborative forest management
- Environmental levy
- Integrated soil & nutrient management tools
- On-farm resource flows

(E) VOLUNTARY & INDIGENOUS APPROACHES

- Analysis of international regulations
- Converting black economic empowerment to sustainable & equitable empowerment
- Bhagidari scheme (India)
- Informal communication
- Quality management systems
- Review of national jurisdiction
- Taboos

F) OTHER APPROACHES

- Capacity-building (general)
- Capacity-building workshops/seminars
- Collaborative forest management
- Environmental levy
- Integrated soil & nutrient management tools
- On-farm resource flows

Source: IIED 2009: The challenges of environmental mainstreaming. Experience of integrating environment into development institutions and decisions. p. 94-95.

