Module 5
Mainstreaming climate change in national, sector and local policies and strategies

Training workshops on mainstreaming climate change
Key topics covered by this module

• Rationale for mainstreaming climate change into national and sector policies and strategies
• Rationale for mainstreaming climate change at the sub-national and local levels
• Key stakeholders
• Main entry points in the policy cycle
• Tools for climate change integration
Rationale for mainstreaming climate change in national and sector policies and strategies
Climate change mainstreaming at strategic planning levels

More:
- integrated
- effective
- efficient
- sustainable responses

Sector coordination

Allocation of resources across sectors

Socio-economic impacts

Biophysical impacts

Sector 1

Sector 2

Sector 3

National level
**Why mainstream climate change at strategic planning levels?**

<table>
<thead>
<tr>
<th>National level</th>
<th>Sector level</th>
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<tbody>
<tr>
<td>Overall guiding policy framework</td>
<td>Operationalisation and implementation of national policies</td>
</tr>
<tr>
<td>National legislation/regulation</td>
<td>Sector-specific legislation/regulation</td>
</tr>
<tr>
<td>Exercise of some key functions</td>
<td>Own initiatives, development of capacities &amp; good practices</td>
</tr>
<tr>
<td>Management of international relations</td>
<td>Transboundary cooperation on climate-relevant issues</td>
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- **Wider pool of resources**
- **Wider ownership of response**
- **More widespread capacity and institution building**
Rationale for mainstreaming climate change at the sub-national and local levels

Main source: OECD (2009a)
Why the sub-national and local levels matter

• Development impacts are best observed and understood at the local level
• Climate change impacts are felt at the local level
• Vulnerability and adaptive capacity are context-specific
• Most adaptation options, for being effective, require implementation at the local level
• Initiatives pioneered at the local level may be replicated and scaled-up
Community-based adaptation

• For the above-mentioned reasons, community-based adaptation is an important aspect of climate change mainstreaming

• Community vulnerability and adaptation assessments are a key tool in support of community-based adaptation

• Several pilot communities in the Cook Islands, Fiji, Samoa and Vanuatu have used this approach to analyse and select options for addressing vulnerability and adaptation needs
Key stakeholders
Key stakeholders

- Ministries of Finance, Planning, Development
- Members of Parliament
- Ministries with sector-specific competences
- Sector management agencies
- Donor agencies
- Civil society organisations
- Sub-national / local governments
- Local private sector
- Local citizens & organisations
- Research organisations
- Private sector
Top-down and bottom-up approaches to adaptation

National policies & strategies
Model- and scenario-driven
Focused on physical impacts and ‘biophysical vulnerability’

National level incl. sectors

Top-down

Subnational levels (local in particular)

Bottom-up

Stakeholder approach
Focused on prevailing socio-economic & environmental conditions and on ‘social vulnerability’

Community-based adaptation, pilot projects
Stakeholder involvement in national planning

• In practice, integration of climate change into national and sector policies and strategies should rely on a mix of:
  – top-down approaches
  – bottom-up approaches

• The voice of stakeholders from sub-national levels, as well as knowledge and experience acquired at these levels, must be taken into account in national policies and planning

• Pacific island countries promote bottom-up approaches through community-based adaptation
Main entry points for climate integration in the policy cycle
### Main entry points in the national and sector policy cycles

<table>
<thead>
<tr>
<th>Policy cycle stage</th>
<th>National level</th>
<th>Sector level</th>
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</thead>
<tbody>
<tr>
<td>Policy formulation</td>
<td>National long-term vision&lt;br&gt;National policies and strategies</td>
<td>Sector policies and strategies</td>
</tr>
<tr>
<td>Planning</td>
<td>Multi-year development plan</td>
<td>Sectoral plans</td>
</tr>
<tr>
<td>Resource allocation</td>
<td>National budget&lt;br&gt;Climate-related fund(s)</td>
<td>Sector budget envelopes&lt;br&gt;Resources from fund(s)</td>
</tr>
<tr>
<td>Programming &amp; implementation</td>
<td>Sector-level development plans and budgets</td>
<td>Sector programming</td>
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- **Recognise climate risks**
- **Allocate funding for climate-specific actions**
- **Include climate-related programmes/projects (sectoral and cross-sectoral)**
- **Relocate funding to vulnerable sectors/regions**
- **Incorporate climate-related activities**

Adapted from: Olhoff & Schaer (2010) Fig. 1, p. 10
Climate change in national policy formulation

- Key processes include the formulation of:
  - long-term ‘visions’ and development strategies (10-20 yrs)
  - medium-term strategies (e.g. PRSPs, horizon 3-5 yrs)
- Climate change integration requires:
  - a clear recognition of climate risks and the need for adaptation/mitigation
  - applying a ‘climate lens’ in the formulation process, and making the necessary adjustments
• Key processes include the formulation of:
  – sector policies, guided by broader national vision and development strategies
  – medium-term sector strategies (horizon 3-5 years)
• Climate change integration requires:
  – reflecting upon and deepening action on climate change priorities established at the national level
  – a clear recognition of climate risks and the need for adaptation/mitigation
  – applying a ‘climate lens’ to the formulation process, and making the necessary adjustments
Applying a ‘climate lens’

- Involves examining the following aspects:
  - possible vulnerability of the policy/strategy to climate risks
  - and extent to which such risks are being addressed
  - possibility that the policy/strategy may lead to increased vulnerability/maladaptation
  - contribution of the policy/strategy to GHG emissions
  - for existing policies/strategies subject to revision, amendments that might be required to better address climate risks, constraints and opportunities (‘climate-proofing’)

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GCCA
Global Climate Change Alliance
Climate change at the national planning stage

• Planning involves:
  – the translation of higher-level policy objectives into multi-year operational action plans
  – the costing of such plans, with links to the annual budget or the medium-term expenditure framework (MTEF)
  – combining top-down inputs from national policies with bottom-up inputs from sectoral plans

• Climate change integration requires:
  – applying a ‘climate lens’ to the proposed action plan
  – proactively integrating climate change adaptation and mitigation measures in this action plan
Climate change at the sector planning stage

• Planning involves:
  – the translation of the sector policy/strategy into a set of concrete actions, to be implemented over a number of years in order to achieve sector objectives

• Climate change integration requires:
  – applying a ‘climate lens’ to the proposed sectoral plan
  – proactively integrating climate change adaptation and mitigation measures in this plan
  – also, integrating cross-sectoral adaptation and mitigation measures identified at the national level (e.g. in relation to disaster risk management)
Main entry points for climate mainstreaming in local development

- Local government planning processes
- Local regulatory & service provision frameworks
- Local accountability mechanisms
- Private sector & civil society processes
Climate change in a national policy: illustration

- National Strategic Development Plan 2003, Federated States of Micronesia:
  - Infrastructure:
    - risk exposure to be used as a criterion to rank infrastructure investments
    - new emphasis on codes and practices for climate-proofing infrastructure
  - Health:
    - assessments of climate-related health risks
    - strengthening of early warning systems
    - environmental health monitoring
Climate change in a national policy: illustration

• National Strategic Development Plan 2003, Federated States of Micronesia (cont’d):
  – Environment and Natural Resources:
    • development of community-based risk reduction strategies
    • consideration of CC and sea level rise in land use planning
    • assessment of CC impact on the tuna industry

  – Growth strategy based on agriculture, forestry, mining, natural gas extraction, tourism
  – REDD+ seen as a significant opportunity and a way of mitigating domestic GHG emissions
  – Climate-resilient development: focus on coastal flooding and malaria risks
  – Emphasis on institutional strengthening/reshaping and local community participation
  – Commitment to climate change mainstreaming, research, pilot programmes, large-scale consultations
Climate change integration in a sector policy: illustration

- Solomon Islands Government policy on organic agriculture systems
  - CC increases importance of sustainable water management
  - Organic agriculture contributes to CC mitigation
  - Organic agriculture to be taught as a specific topic in training programmes on climate change
Climate change integration in a sector policy: illustration

- Solomon Islands – National agriculture & livestock sector policy 2009-2014
  - Sector to contribute to the development and implementation of the National Disaster Risk Management Plan, which notably addresses climate-related risks
  - To improve resilience to the effects of climate change:
    - Encourage the use of conservation farming techniques (*)
    - Promote agroforestry with intercropping to reduce vulnerability to natural disasters & improve productivity (*)
    - Discourage slash-and-burn methods (*)
    - Develop crop insurance schemes
    - Mainstream CC adaptation in all sector strategies & programmes...

(*) Also contributes to CC mitigation
Activity 4(1) – Case study:
Climate change mainstreaming in a national development strategy
Activity 4(2) – Case study:
Climate change mainstreaming in a sector programme
Tools for mainstreaming climate change
Overview of key tools for mainstreaming climate change

– UNDP (2010) figure on ‘Key mainstreaming entry points and components in the policy and project cycles’
– Vulnerability and adaptation assessments (see Mod. 3)
– Macro and meso economic analysis (see Mod. 3)
– Pilot projects (see Mod. 3)
– Strategic environmental assessment
– Climate risk screening and assessment
– Process guidance tools (e.g. CRiSTAL, community-based vulnerability and adaptation assessment)
– EuropeAid’s climate change sector scripts
Strategic Environmental Assessment

• A study:
  – aimed at analysing the environmental consequences of proposed policies/plans/programmes, as well as the main environmental opportunities, risks and constraints to be taken into account
  – for the purpose of promoting more sustainable development

• Ensures that environmental considerations are taken into account, alongside social and economic ones, early in the policy and planning process
Main types of SEAs

• Impact-centred SEAs
  – undertaken at the level of plans and programmes
  – focused on impacts including cumulative ones
  – evolved from the practice of environmental impact assessment (EIA) -> similar process

• Institution-centred SEAs
  – undertaken at the level of policies and ‘master plans’
  – support the assessment of the complex interactions between political, social, economic, institutional, governance and environmental factors
  – evolved from policy evaluation approaches

• Sectoral SEAs
Role of SEA in supporting climate change integration

With adequate ToR, SEA can:

- identify elements of the considered policy or programme that are sensitive to or at risk from climate change
- identify elements that may result in increased vulnerability to the effects of climate change
- assess direct and indirect GHG emissions
- identify options for risk management, adaptation and mitigation

and make recommendations on alternatives, on institutional aspects, capacity building, etc.

- For a model of ToR, see EC Guidelines on the Integration of Environment & Climate Change (2009), Annex 5
Key stages in a typical SEA process

**Screening**
- Decision on need for an SEA

**Scoping**
- Definition of SEA approach and aspects to be assessed (incl. scenarios/alternatives)
- Baseline “business-as-usual” situation
- Identification of env’l and climate-related opportunities and constraints
- Identification and evaluation of potential impacts incl. GHG emissions
  - Performance indicators
  - Adaptation, mitigation and optimisation
- Conclusions and recommendations
- SEA report

**SEA study**
- SEA results should be linked to specific entry points in the policy or planning process

**Stakeholder participation**
Benefits of using SEA in support of climate change integration

• Supports consideration of climate change in a strategic perspective
  – including consideration of the merits of various alternatives under various scenarios

• Supports ‘seamless’ integration of climate-related and other environmental aspects
  – key role of natural systems in adaptation and mitigation

• If conducted according to SEA good practices, supports active stakeholder consultation and participation in assessing climate-related issues
Some constraints and challenges associated with SEA

• Relatively complex, resource- and time-intensive
  – Possibly problems of capacity and resources

• Possible responses:
  – Initially limit the use of SEA to 1-2 key policies or sector strategies -> acquire experience and capacities, then gradually extend use
  – Use lighter or simplified versions of the tool
    • e.g. integration of environmental and climate-related considerations in policy/plan/programme formulation studies and processes
• Fiji: SEA of Tourism Development Plan (Levett & McNelly, WWF, 2003)
  – Climate change may contribute to the generation of synergistic impacts
    • e.g. Coral reefs threatened by the combined effects of increased nutrient loading (from sewerage and seepage from landfills), higher water temperatures, more boat movements and more contact with divers
  – Sustainability objectives (against which the impacts of the Plan are assessed) include ‘minimising climate change impacts’ by ‘minimising greenhouse gas emissions per tourist day/tourist dollar’
The potential effects of climate change on Fiji and their consequences for tourism are summarised in the environmental baseline:

- Spoiling of coastal environments (coral bleaching, coastal erosion, sedimentation of shoreline and coral reefs)
- Increased vulnerability of tourism facilities to flooding and storm damage
- More frequent disruption to tourist travel and restrictions on enjoyment due to extreme weather events
- Increased health risks to tourists
- Greater competition and conflict over access to natural resources as non-tourism demands increase while climate change erodes the resource base (freshwater, land, ...
– The socio-economic baseline mentions the targeting of international air travel for GHG emission reductions as a long-term development that might threaten tourism development

– Without mitigation measures, the objective of ‘minimising climate change impacts’ cannot be reached

– Reducing the ‘climate change intensity’ of tourism will require:
  • reducing air travel impacts in proportion to tourism benefits (e.g. longer stays, closer origin)
  • implementing energy efficiency measures in new developments (e.g. low-energy accommodation, use of renewable energy)
Climate risk screening

• Identifies potential risks for a programme or project by assessing, in its specific context:
  – its exposure to the effects of climate change
  – its sensitivity to such effects
  – the response and adaptation capacity
  – whether implementation may lead to maladaptation

• In addition, may also look at impacts on climate (GHG emissions or emission removals)

• A standard screening questionnaire can be developed to support this exercise
Climate risk screening: key factors to consider

- Location
- Sector
- Relationship of the planned intervention to livelihoods
- Socio-economic conditions (current – projected)
- Adaptive capacity of various stakeholder groups
  - Including current coping mechanisms / autonomous adaptation measures
- Lifetime of the considered investments/activities
Outcomes of climate risk screening

• The outcomes of the screening process are:
  – a preliminary diagnosis of a programme’s or project’s overall degree of vulnerability to the effects of climate change: to which extent might climate variability or change jeopardise the achievement of objectives and expected results? => e.g. ‘low’, ‘medium’ or ‘high’ vulnerability
  – a preliminary diagnosis of the risks of maladaptation
  – a preliminary diagnosis of GHG emissions/ emission removals associated with the programme/project
  – a decision on what is required during the next step of programme or project development
Climate risk assessment (CRA) is a dedicated study aimed at:
- assessing in further detail the risks identified during climate risk screening
- identifying possible risk prevention, risk mitigation and other adaptation measures
- assessing these options
- formulating concrete recommendations with regard to the design of the programme or project

The assessment of future climate risks should be anchored to an assessment of current risks.
Two approaches to climate risk assessment:

- Natural hazards-based approach: takes the probability of a climate hazard of a given magnitude as the starting point, then assesses how it might impact vulnerability
  - Risk = Probability of climate hazard x vulnerability

- Vulnerability-based approach: takes critical ‘thresholds’ in terms of vulnerability as the starting point, then assesses which types/combinations of climate events could trigger the passing of these critical thresholds
  - Risk = Probability of exceeding one or more criteria of vulnerability

These methods are complementary

Source: Jones & Mearns (2004)
A comprehensive approach to risk assessment

Set the context
Study area, objectives of assessment, elements to be evaluated

Identify risks
Based on selected scenarios & time frames

Analyse risks
Evaluate consequences & likelihood
-> Assign a risk level

Evaluate risks
Review outcomes of risk assessment
Set priorities

Treat risks

Adapted from: Elrick & Kay (2009a), Risk Assessment Handbook, Fig. 1, p. 3
Process guidance tools

- Tools that guide users through the process of gathering and analysing data/information in relation to:
  - the identification of climate risks to development activities
  - the definition of climate risk management strategies

- Can be used in conjunction with:
  - existing reports and studies
  - data and information provision tools
  - knowledge-sharing tools
The CRiSTAL tool (1)

- Community-based Risk Screening Tool – Adaptation & Livelihoods
  - A screening tool designed to help project designers and managers integrate risk reduction and climate change adaptation into community-level projects
  - Free download from www.cristaltool.org
  - Supports the integration of risk reduction and climate change adaptation into community-level projects
    - through an assessment of the links between livelihoods and climate, and of the impact a project may have on key livelihood resources and thus on community-level adaptive capacity

Source: http://www.cristaltool.org/
The CRiSTAL tool (2)

• Key characteristics:
  – Uses a livelihoods approach to climate adaptation
  – Supports the collection of information needed to assess vulnerability and adaptive capacity, based on a mix of:
    • stakeholder consultations, participatory workshops, site visits
    • background research including interviews
  – Considers both current climate variability and future climate change
  – Can be used with different groups within a community
    • Helps identify synergies and conflicts of interest
  – Encourages community participation in the design of adaptation measures
EuropeAid’s climate change sector scripts

A series of 10 information notes, comprising an introduction and sector-specific scripts dedicated to:

- Agriculture & Rural Development
- Education
- Energy Supply
- Ecosystems & Biodiversity Management
- Health
- Infrastructure (incl. Transport)
- Solid Waste Management
- Trade & Investment
- Water Supply & Sanitation
• CRISTAL tool (Community-based Screening Tool – Adaptation and Livelihoods) : www.cristaltool.org


