



Global Climate Change Alliance Support Facility

*Training workshops on mainstreaming climate change in national development planning and budgeting*

## HANDOUT FOR PARTICIPANTS

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### MODULE 6

**Mainstreaming climate change in national, sector and sub-national policies, strategies and programmes**



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## MODULE 6 – Mainstreaming climate change in national, sector and sub-national policies, strategies and programmes

### TOPICS COVERED BY THE MODULE:

- Why mainstream climate change at the national, sector and sub-national levels?
  - Key stakeholders and cross-level interactions.
  - Main entry points for mainstreaming climate change in strategic policy and planning processes.
  - Tools for mainstreaming climate change in strategic policy and planning processes.
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### KEY TOOLS AND APPROACHES:

- EuropeAid's climate change sector scripts.
- Climate risk screening.
- Climate risk assessment.
- Strategic environmental assessment.

And also (see Module 5):

- *Vulnerability and adaptation assessments.*
  - *Macro and meso economic analysis.*
  - *Demonstration or pilot projects.*
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### KEY CONCEPTS AND MESSAGES:

*Why mainstream climate change at the national, sector and sub-national levels?*

1. Several reasons justify the *integration of the response to climate change at the national and sector strategic planning levels*. In particular:
    - The biophysical and socio-economic impacts of climate change are such that any specific effect tends to have implications at the level of whole sectors (rather than just isolated projects) and across multiple sectors.
    - The national level ensures intersectoral coordination (and often also plays a role in coordinating various levels of government). It is also in charge of arbitrating between the requests of the various sectors and allocating resources between them.
  2. The following considerations also justify an integrated response at the national and sector levels (OECD 2009a):
    - The national level provides the overall guiding policy framework within which 'lower' levels (sector and sub-national) operate. Sector policies and programmes directly contribute to the operationalisation and implementation of national policies/strategies. Where the response to climate change is being addressed in national policies and strategies, it is logical and necessary to take similar and complementary action at the sector level. The national and sector levels complement each other and provide a consistent framework within which to plan and implement actions in response to climate change.
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- National and sector-specific legislation and regulations may affect vulnerability and adaptive capacity, and create incentives and disincentives to engage in climate adaptation and mitigation (e.g. property rights regimes, legal framework for insurance and financial services).
  - Some key functions (e.g. collection and analysis of climate-related data, setting up of early warning systems, overall disaster risk reduction planning) are best exercised at national level. On the other hand, in the absence of or in parallel with a national-level response to climate change, sector-level initiatives may play a pioneering role, starting to develop capacities and good practices that can later become a model for other sectors and for national development policies.
  - The national level manages international relations – which may be important in relation to shared resource management, the implementation of international treaties including the UNFCCC, and aid coordination. Sector-specific bodies are sometimes involved in transboundary cooperation on climate-relevant issues (e.g. river basin management, regional research programmes).
  - True integration of climate change into national and sector policies and strategies supports wider ownership of the climate response (compared with the more limited ownership of a standalone plan, standalone projects or local level interventions), allows drawing on a wider pool of financial and human resources for implementation, and promotes more widespread capacity and institutional building.
3. The *benefits* of climate change integration at these strategic planning levels include:
- more integrated responses, based on a more comprehensive understanding of linkages, opportunities, risks and constraints;
  - more effective responses, through better coordination across sectors and between various levels of governance;
  - more efficient responses, through more enlightened prioritisation and allocation of resources;
  - all this resulting in more sustainable responses.
4. The *sub-national and local levels* also matter, particularly in terms of climate change adaptation, for a variety of reasons:
- 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 very much 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 (OECD 2009a).
5. For these reasons, *community-based adaptation* (including demonstration or pilot projects, see Module 5) is an important aspect of climate change mainstreaming. Community-focused vulnerability and adaptation assessments are a key tool in support of community-based adaptation.

#### *Key stakeholders and cross-level interactions*

6. *Key stakeholders* in relation to national and sector policies/strategies include:
- policy and planning authorities with country-wide competences cutting across sector boundaries (e.g. ministries of finance, planning, development);

- policy and planning authorities with country-wide but sector-specific competences (e.g. agriculture, water, land use planning);
  - management agencies with sector-specific competences;
  - members of parliament;
  - civil society;
  - national environmental and development NGOs;
  - private sector organisations with nationwide or sector-specific influence;
  - research and academic organisations with nationwide or sector-specific influence;
  - and, particularly in countries that rely a lot on external aid, donor agencies (which may provide general budget support or be involved in sector-wide approaches) (Conde & Lonsdale 2004, Ebi et al 2004, OECD 2009a).
7. Key stakeholders at the sub-national and local levels include:
- sub-national and local governments (provinces, districts, municipalities, villages, ...);
  - the local private sector;
  - regional research centres and academic institutions;
  - local associations (including local environmental and development NGOs);
  - local communities;
  - and citizens (individuals, households) (Conde & Lonsdale 2004, Ebi et al 2004, OECD 2009a).
8. Although stakeholders with a nationwide remit are likely to be most active in national and sector-level planning, the voice of stakeholders at sub-national levels, as well as knowledge and experience acquired at these levels (e.g. through demonstration or pilot projects), must be taken into account. In practice, the mainstreaming of climate change into sector policies and strategies should rely on a *mix of top-down and bottom-up approaches* (Niang-Diop & Bosch 2004, OECD 2009a).
9. *Top-down approaches* to assessing vulnerability and adaptation typically start from the use of global development scenarios and climate scenarios derived from global climate models (downscaled at the regional level), to feed data into impact models; the resulting impacts are then used to build impact-focused adaptation strategies. These approaches are primarily focused on physical impacts and 'biophysical vulnerability', adopt a medium- or long-term perspective, and usually originate from the national (or international) level. *Bottom-up approaches*, on the other hand, take current climate variability and indicators of stakeholder vulnerability as the starting point to determine 'social vulnerability'; the resulting findings are then used to design adaptation strategies focused on strengthening adaptive capacity. These approaches are usually (though not always) focused on social and economic well-being at more local levels and with shorter time horizons (Dessai & Hulme 2004). **Figure 6.1** illustrates how both top-down and bottom-up approaches to vulnerability and adaptation assessment, with their different perspectives, can inform climate adaptation mainstreaming.

**Figure 6.1 – Top-down and bottom-up approaches to vulnerability and adaptation assessment**

Source: GCCA Support Facility – Freely adapted from Dessai & Hulme (2004) Does climate adaptation policy need probabilities? *Climate Policy*, vol. 4 (2) 107-128, Figure 1.

*Main entry points for mainstreaming climate change in strategic policy and planning processes*

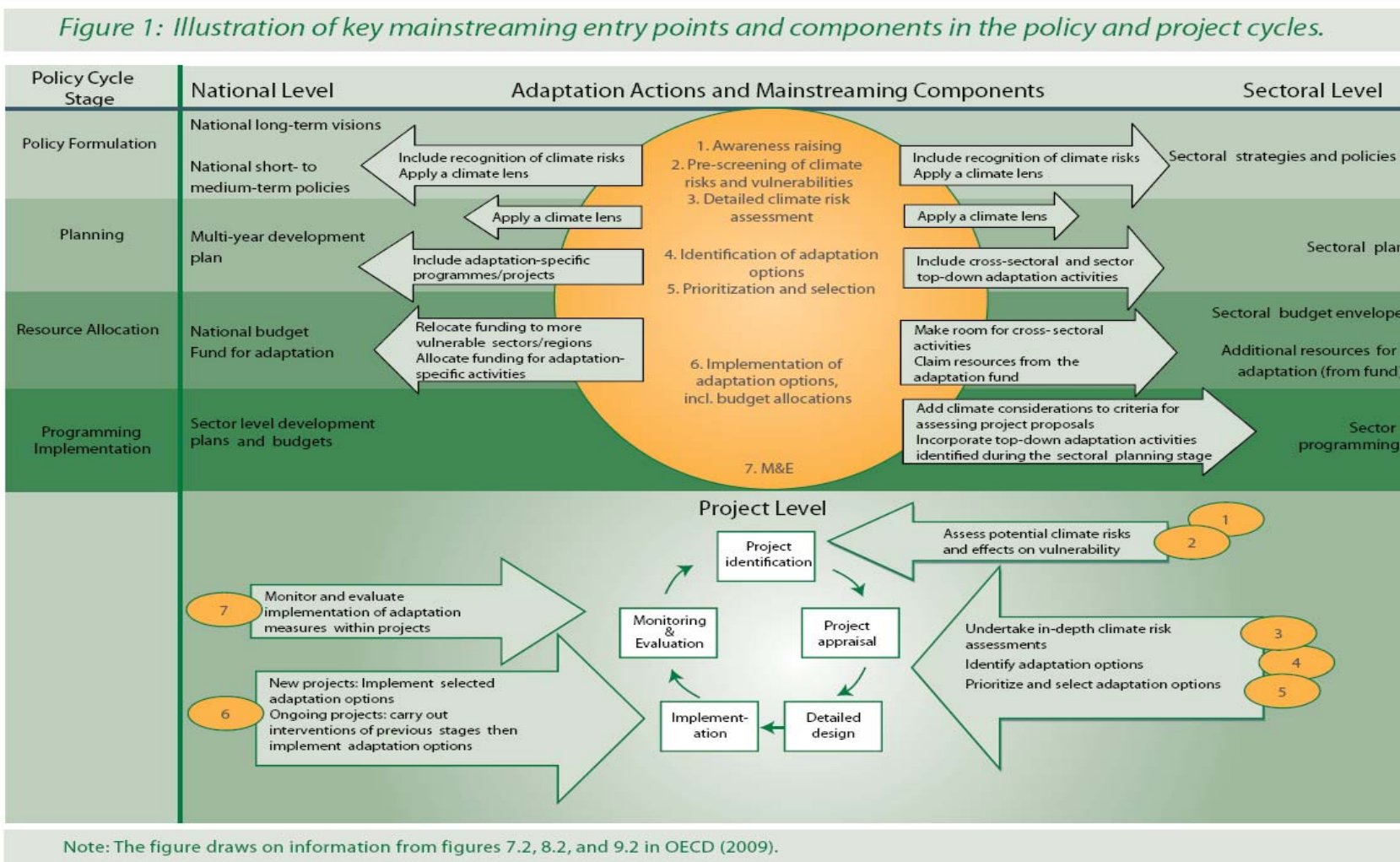
10. *Entry points for integrating climate change* exist at all the stages of the national and sector policy cycles, as well as the project cycle. **Figure 6.2** provides an illustration of key entry points for climate change mainstreaming in the policy and project cycles. **Table 6.1** provides examples of entry points for mainstreaming (in general) in national development planning.

**Table 6.1 – Possible entry points for mainstreaming into national development planning**

PLANNING LEVEL	ENTRY POINTS
National government and cross-sectoral ministries	<ul style="list-style-type: none"> <li>– Poverty reduction strategy paper.</li> <li>– National development plan.</li> <li>– MDG-based national development strategy.</li> <li>– National budget allocation process or review (e.g. medium-term expenditure framework, public expenditure review).</li> </ul>
Sector ministries	<ul style="list-style-type: none"> <li>– Sector strategies, plans and policies (e.g. agricultural sector plan).</li> <li>– Preparation of sector budgets.</li> <li>– Public expenditure reviews.</li> </ul>
Subnational authorities	<ul style="list-style-type: none"> <li>– Decentralisation policies.</li> <li>– District plans.</li> <li>– Preparation of subnational budgets.</li> </ul>

Source: UNDP-UNEP (2009) *Mainstreaming Poverty-Environment Linkages into Development Planning: A Handbook for Practitioners*. Table 4.1, p. 32.

Figure 6.2 – Key entry points for climate change mainstreaming in the policy and project cycles



Source: Olhoff & Schaer (2010) *Screening tools and guidelines to support the mainstreaming of climate change adaptation into development assistance: A stocktaking report*. Figure 1, p. 10.

11. ‘Applying a climate lens’, which can be done using some of the tools presented below (strategic environmental assessment, climate risk screening and assessment), involves examining the following aspects:

- the possible vulnerability of the policy/strategy to climate risks – and the extent to which such risks are being addressed;
- the possibility that the policy/strategy may lead to increased vulnerability/maladaptation;
- the contribution the policy/strategy may make 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’) (OECD 2009a).

This process should result in decisions regarding: (i) the need for further studies and investigation of adaptation and mitigation considerations; and (ii) the need for redesigning the policy/strategy or integrating specific adaptation/mitigation measures. **Figure 6.4** below highlights the outcomes of ‘applying a climate lens’ at the programme/project level; *mutatis mutandis*, a similar approach can be adopted at the policy/strategy level.

12. At the *national and sector policy formulation* stage, climate change integration requires:

- a clear recognition of climate risks and of the need for adaptation/mitigation;
- at the sector level, reflecting upon and deepening action on climate change priorities established at the national level;
- applying a ‘climate lens’ to the formulation process, and making the necessary adjustments to policies (OECD 2009a, Olhoff & Schaer 2010).

13. At the *national and sector planning* stage, climate change integration requires:

- applying a ‘climate lens’ to the proposed action plans;
- proactively integrating climate change adaptation/mitigation considerations and measures in these action plans (including sector-level top-down activities);
- and also, integrating cross-sectoral adaptation/mitigation considerations and measures identified at the national level (e.g. in relation to disaster risk management, energy efficiency) (OECD 2009a, Olhoff & Schaer 2010).

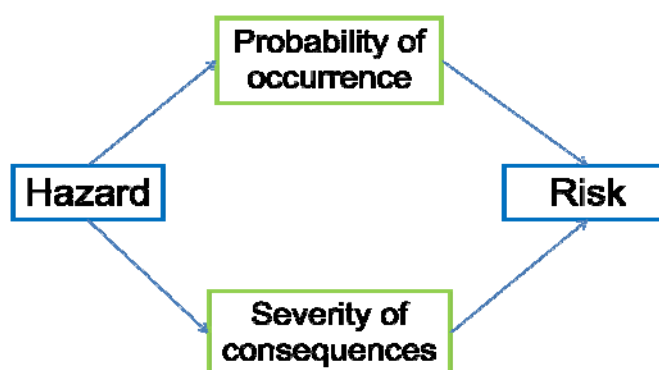
#### *Tools for mainstreaming climate change in strategic policy and planning processes*

14. Various *tools* can be used to support climate change mainstreaming in the national and sector policy cycles and in local development planning. We have already discussed tools such as vulnerability and adaptation assessments, macro and meso economic analysis, and demonstration or pilot projects (see Module 5): these tools are relevant for finding entry points and making the case for mainstreaming at an early stage in the effort, but as importantly at the stage of mainstreaming climate change in policy and planning processes. Other relevant tools supporting the mainstreaming process and developed in this module include:

- strategic environmental assessment;
- climate risk screening and assessment;
- and EuropeAid’s climate change sector scripts.

15. EuropeAid's *climate change sector scripts* (EC 2009a) are a series of ten information notes, comprising an introduction and nine sector-specific scripts dedicated to, respectively: agriculture & rural development; education; energy supply; ecosystems & biodiversity management; health; infrastructure (including transport); solid waste management; trade & investment; and water supply & sanitation. All sector scripts address the following aspects: (i) how climate change might affect the sector; (ii) what adaptation options exist in the sector; (iii) how the sector may contribute to climate change mitigation. A printout of the **climate change sector scripts** is included in the binder, at the end of this module, and is also available in electronic format, on the CD-ROM provided to workshop participants. The sector scripts can usefully support the mainstreaming of climate-related issues at the sector level, but also at the project level.
16. As an introduction to climate risk screening and assessment, it is useful to define the concept of 'risk' and how it differs from the concept of 'hazard'. A *hazard* is a potentially damaging physical event, action, situation or phenomenon; a *climate hazard* is a manifestation of climate variability or change, or specific type of climate event (discrete or continuous, one-off or recurrent), holding the potential to cause harm. *Risk* is the combination of: (i) the probability (or frequency) of occurrence of a defined hazard resulting in adverse consequences; and (ii) the magnitude of these consequences, given the interaction of the hazard with the properties of the exposed system. *Climate risks* thus result from the combination of the probability or frequency of occurrence of specific climate hazards, and the sensitivity and vulnerability of those exposed to such hazards (Brooks 2003, Dessai & Hulme 2004, Jones & Boer 2004, IPCC 2007a, Olhoff & Schaer 2010). **Figure 6.3** provides a simplified illustration of the relationship between hazard and risk.

Figure 6.3 – Hazard and risk



Source: GCCA Support Facility.

17. *Screening* is a procedure, ideally implemented at an early stage (e.g. identification stage) in the development of a programme or project<sup>1</sup>, aimed at determining whether it is exposed to risks or likely to generate impacts that require further assessment at the design stage. Screening may be undertaken against a variety of themes and criteria (e.g. environmental impacts, gender-related aspects, climate risks). *Climate risk screening* may mean somewhat different things to different organisations. For the purpose of this training, we will consider it as a tool for the identification of the potential risks associated with a programme or project, based on the preliminary assessment or diagnosis, in its specific context, of:
- its exposure to the effects of current climate variability and future climate change;
  - its sensitivity to such effects;
  - the response and adaptation capacity;

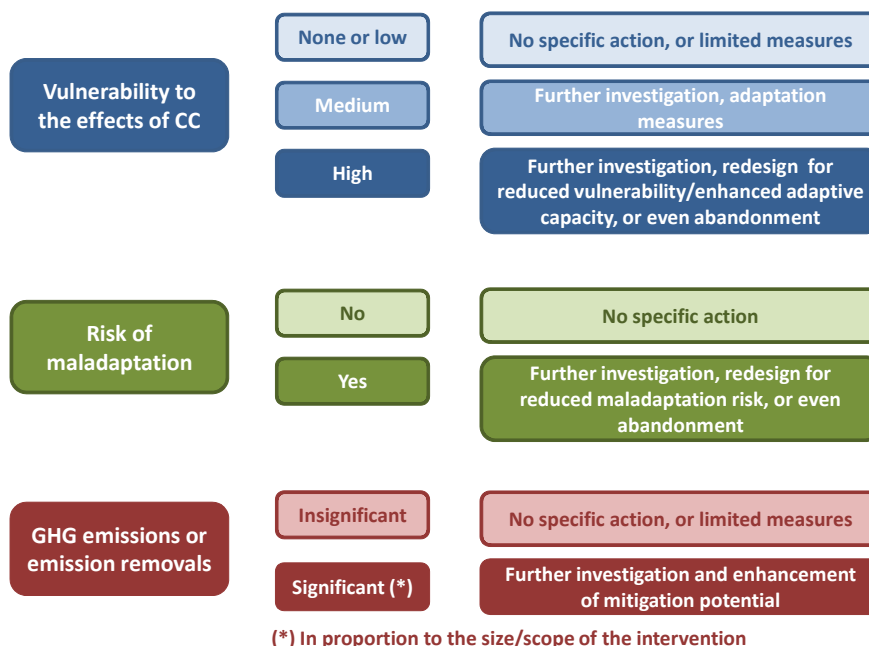
<sup>1</sup> Screening procedures are typically applied to programmes and projects but, with the necessary adaptations, can also be extended to policies.

- whether implementation may lead to maladaptation (Burton & van Aalst 2004, EC 2009b, OECD 2010a, Olhoff & Schaer 2010).

In addition, the screening procedure may also look at the programme's or project's possible impacts on climate (in the form of GHG emissions or emission removals) (EC 2009b). Note that consideration of these aspects is akin to 'applying a climate lens' to the programme or project, a concept presented above in relation to policies and strategies.

18. A model of climate risk screening questionnaire is provided in **Annex 6.1**. It can support the screening exercise by ensuring that all important aspects are systematically examined. Aspects taken into account include the intervention's location, its nature (sector of intervention), its relationship to livelihoods, the prevailing and future socio-economic conditions, the adaptive capacity of various stakeholder groups (including current coping mechanisms/autonomous adaptation measures) – and, of course, the lifetime of the considered investments/activities (which determines the time period to be taken into account and the likelihood of exposure to long-term climate change in addition to current climate variability) (Burton & van Aalst 2004, EC 2009b).
  
19. The *outcomes of the climate risk screening process*, summarised in **Figure 6.4** below, are:
  - a preliminary diagnosis of the programme's or project's overall degree of vulnerability to the effects of current climate variability and climate change, answering the question: 'to which extent might climate variability or change jeopardise the achievement of objectives and expected results?'
  - a preliminary diagnosis of the risks of maladaptation, answering the question: 'to which extent might the programme or project increase the vulnerability of society or some specific groups to the effects of climate change?'
  - as an 'add-on', a preliminary diagnosis of GHG emissions/emission removals potentially associated with the programme/project;
  - a decision on what is required during the next step of programme or project development; for instance:
    - o in case of no or low vulnerability: no specific action needed, or limited measures;
    - o in case of medium-level vulnerability: investigation of identified vulnerabilities and possible adaptation/risk mitigation measures in the context of formulation/project design studies;
    - o in case of high vulnerability: commissioning of a dedicated climate risk assessment study, significant redesign of the programme/project, or even decision to abandon the programme/project;
    - o in case of identified risks of maladaptation: further investigation, design improvements or significant redesign of the programme/project, or even decision to abandon the programme/project;
    - o in case of a meaningful contribution to GHG emission and/or the existence of a potential for climate mitigation: further investigation of the mitigation potential (Burton & van Aalst 2004, EC 2009b).

Figure 6.4 – Outcomes of climate risk screening



Source: GGCA Support Facility, based on EC (2009b) and OECD (2009a)

20. Screening should in most cases not require the use of specialised expertise. It does require, however, that those who undertake it have access to existing information on climate change and the associated risks and potential impacts, and take the time needed to examine the proposed programme or project in the light of this information (see Module 5 on ‘assessing evidence’). Sources of information notably include:

- summaries of the main changes and trends in climate;
- climate forecasts, climate risk profiles;
- the findings of vulnerability and adaptation assessments;
- the findings of macro or meso economic analysis in relation to climate change;
- experience and lessons learned from demonstration or pilot projects.

Climate risk screening can be undertaken together with screening for environmental impacts (Burton & van Aalst 2004, EC 2009b).

21. *Climate risk assessment* (CRA), to be undertaken where high vulnerability to the effects of climate change has been diagnosed by the screening process, is a more detailed, 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 (EC 2009b, OECD 2009a, OECD 2010a, Olhoff & Schaer 2010).

A model of Terms of Reference for a CRA is provided in **Annex 6.2**.

22. The assessment of future risks (linked to future climate) should be anchored to an assessment of current risks (linked to current climate variability and extremes). There are two main (and complementary) 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. In this approach, 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. In this approach, risk = probability of exceeding one or more criteria of vulnerability (Jones & Boer 2004, Jones & Mearns 2004).

23. *Strategic environmental assessment (SEA)* may be one of the best available tools for supporting climate change integration in national development policies and strategies, and in sector policies, plans and programmes (OECD 2008, OECD 2009a). SEA is a study aimed at analysing the environmental consequences of proposed policies, programmes and major strategic interventions – as well as the main environmental opportunities, risks and constraints to be taken into account – for the purpose of promoting more sustainable development. It helps ensure that environmental considerations are taken into account, alongside social and economic ones, early in the policy and planning process (Partidário 2007, EC 2009b). SEA, with adequate Terms of Reference, supports the application of a ‘climate lens’ to policies, plans and programmes. It can be used to:

- 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 associated with the policy or programme;
- identify options for risk management, adaptation and mitigation;
- and make recommendations on alternatives, on institutional aspects, capacity building, etc.

A model of Terms of Reference for a SEA supporting the integration of climate-related aspects is provided in **Annex 6.3**.

24. Several *benefits* may be expected from the use of SEA in support of climate change integration:

- SEA supports consideration of climate change in a strategic perspective, including consideration of the merits of various alternatives under various climate change, economic growth, population growth and/or technological development scenarios (see Module 4 on the use of scenarios).
- SEA supports the ‘seamless’ integration of climate-related and other environmental aspects – something important considering the key role natural systems may play in both adaptation and mitigation.
- If conducted according to good practices, SEA involves active stakeholder consultation and participation in assessing climate-related issues. This can help raise awareness, build capacities (or at least identify capacity deficits), and identify sounder, more feasible and more acceptable adaptation and mitigation options.

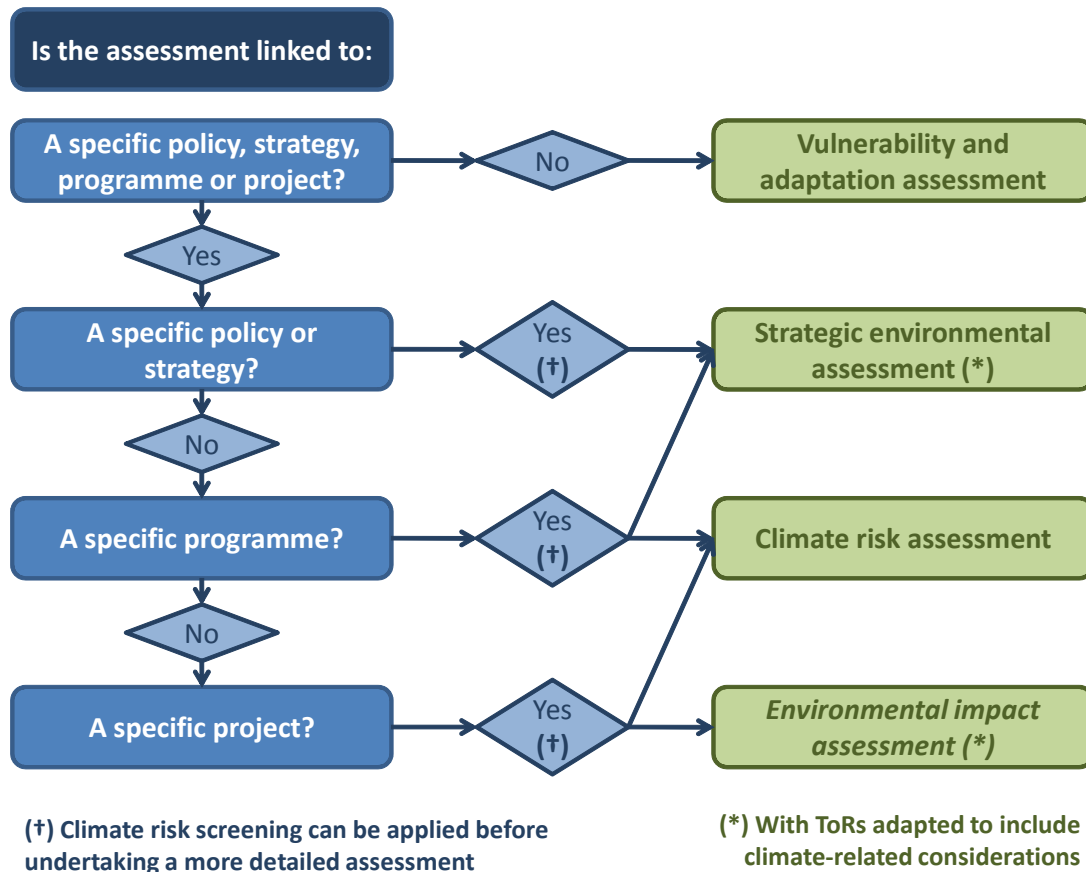
25. On the other hand, *SEA is a relatively complex, resource- and time-intensive tool*. Not all countries may have the level of capacity, the resources and/or the time to conduct full-fledged SEAs in relation to all key policies and sectors. In such circumstances:

- the use of SEA may be initially limited to one or two key (national or sector) policies or sector strategies; this will allow building national experience and capacities and appreciating the usefulness of the SEA process – after which it can be gradually extended to other policies and strategies, based on the availability of resources;

- lighter or simplified studies can be used to support the integration of environmental and climate-related considerations in policy/plan/programme formulation and reviews; climate-related aspects can also be integrated in the associated stakeholder consultation processes.

26. Multiple tools are thus available to support the assessment of climate-related issues and their mainstreaming in national and sector policies, strategies and programmes. **Figure 6.5** provides a simplified guide to the choice of the most appropriate tool (among those presented in this workshop), in the form of a ‘decision tree’.

**Figure 6.5 – Choosing among climate-related assessment tools: decision tree**



Source: GCCA Support Facility

27. To conclude this module, **Table 6.2** provides an overview of the main tools presented, including a short description, their main uses, how they relate to each other, their main strengths, and the constraints and limitations to their use.

**Table 6.2 - Overview of main tools presented in Module 6**

Tool	Short description	Main uses & linkages between the tools	Main strengths	Constraints and limitations
EuropeAid’s <b>climate change sector scripts</b> (included at the end of this handout)	A series of 10 information notes, comprising an introduction and sector-specific scripts, that present in a synthetic form: (i) how climate change might affect the sector and the achievement of sector objectives; (ii) potential adaptation options associated with the sector; and (iii) potential mitigation options associated with the sector	<ul style="list-style-type: none"> <li>– Can support reflection on climate-related issues in relation to policies, programmes and projects.</li> <li>– Cover both adaptation and mitigation aspects.</li> <li>– Can be used to support climate risk screening, and/or to identify issues to be addressed in more detail in climate risk assessment or strategic environmental assessment.</li> </ul>	<ul style="list-style-type: none"> <li>– Synthetic but nevertheless quite comprehensive.</li> <li>– Very practical approach.</li> <li>– Understandable even for non-specialists.</li> <li>– Possible applications at policy and policy dialogue level, programme and project level.</li> </ul>	Generic documents, not customised for specific regional contexts. For any specific country or context, not all identified impacts, and not all identified adaptation and mitigation options, are relevant – so the scripts are to be used with discrimination, to support reflection.
Climate risk screening (see <b>model of climate risk screening questionnaire</b> included in this handout)	<ul style="list-style-type: none"> <li>– A tool, typically questionnaire-based, supporting the systematic review of the potential vulnerability of an intervention to the effects of climate variability and change (exposure, vulnerability, response &amp; adaptation capacity), and of risks of maladaptation.</li> <li>– Ideally applied at a very early stage in the design of an intervention, in order to determine further assessments required and influence programme/project design.</li> </ul>	<ul style="list-style-type: none"> <li>– Most suitable for programmes and projects (somewhat less so for policies, although adaptations are possible).</li> <li>– Primary focus on adaptation, but GHG emissions and emission removals can be addressed as an ‘add-on’.</li> <li>– Can be used as a preliminary step, to identify issues to be addressed in more detail in climate risk assessment or strategic environmental assessment.</li> </ul>	<ul style="list-style-type: none"> <li>– Supports the early assessment of climate risks (vulnerability of the intervention itself, and how it may enhance or reduce vulnerability) in view of the integration of adaptation in programme/project design.</li> <li>– Can also be applied ‘ex post’ (e.g. to review an existing portfolio of programmes or projects).</li> <li>– Can be extended to GHG emissions/emission removals in view of the integration of mitigation options.</li> </ul>	<ul style="list-style-type: none"> <li>– May require some specialised technical expertise (<i>but typically less than climate risk assessment</i>).</li> <li>– Does not propose solutions or response options – only highlights which areas require further investigation.</li> </ul>
Climate risk assessment (see <b>model of ToR for climate risk assessment</b> included in this handout)	A study involving the identification, estimation and evaluation of climate-related risks associated with an intervention, and the identification of risk reduction and	<ul style="list-style-type: none"> <li>– Most suitable for programmes and projects (less so for policies).</li> <li>– Primary focus on adaptation, but GHG emissions and emission removals can be addressed as an ‘add-on’.</li> </ul>	<ul style="list-style-type: none"> <li>– In-depth, dedicated assessment leading to the formulation of concrete recommendations on climate risk management and</li> </ul>	<ul style="list-style-type: none"> <li>– Likely to require significant resources (in terms of data, time, money and specific expertise).</li> <li>– If not coupled with the use</li> </ul>

Tool	Short description	Main uses & linkages between the tools	Main strengths	Constraints and limitations
	risk mitigation measures.	<ul style="list-style-type: none"> <li>– The choice of issues to be addressed can be guided by the results of preliminary climate risk screening, and/or by information drawn from one or several ‘sector scripts’.</li> </ul>	adaptation options (and possibly mitigation options if this was added to the Terms of Reference).	of cost-benefit analysis, cost-effectiveness analysis and/or multi-criteria analysis (see Module 7), may not provide all the information needed to prioritise and select options.
Strategic environmental assessment (see <a href="#">model of ToR for ‘climate-sensitive’ SEA</a> included in this handout)	<ul style="list-style-type: none"> <li>– A study aimed at analysing the environmental consequences of proposed policies/programmes, as well as the main environmental opportunities, risks and constraints to be taken into account, for the purpose of promoting more sustainable development.</li> <li>– The scope of the study can and increasingly should be extended to address climate-related issues (‘climate-sensitive SEA’).</li> </ul>	<ul style="list-style-type: none"> <li>– Suitable for policies and programmes (for projects, environmental impact assessment is the tool of choice).</li> <li>– Can address both adaptation and mitigation aspects of climate change.</li> <li>– The choice of issues to be addressed can be guided by the results of preliminary climate risk screening, and/or by information drawn from one or several ‘sector scripts’.</li> <li>– Adequate coverage of climate-related issues in an SEA is a substitute for climate risk assessment (at least at the level at which the SEA is undertaken – e.g. climate-sensitive SEA of a sector programme removes the need for climate risk assessment at the programme level but not necessarily at the level of individual projects implemented under the sector programme).</li> </ul>	Whereas climate risk assessment is specifically focused on climate-related issues (with an emphasis on adaptation aspects), SEA addresses climate-related and other environmental issues in an integrated manner. It supports: <ul style="list-style-type: none"> <li>(i) the identification of direct and indirect GHG emissions, of aspects that are at risk from CC or may result in increased vulnerability;</li> <li>(ii) the identification of options for risk mngt, adaptation and mitigation (including recommendations on alternatives);</li> <li>(iii) early consideration of env’l &amp; climate-related aspects in the policy and planning process;</li> <li>(iv) ‘seamless’ integration of climate-related and other environmental aspects;</li> <li>(v) active stakeholder consultation and participation.</li> </ul>	<ul style="list-style-type: none"> <li>– Likely to require significant resources (in terms of data, time, money and specific expertise).</li> <li>– If not coupled with the use of cost-benefit analysis, cost-effectiveness analysis and/or multi-criteria analysis (see Module 7), may not provide all the information needed to prioritise and select options.</li> </ul>

Source: GCCA Support Facility

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**USEFUL WEBSITE:**

International Association for Impact Assessment:

<http://www.iaia.org>.

## Annex 6.1 – Questionnaire for climate risk screening

### 1. PROGRAMME/PROJECT EXPECTED LIFETIME

**Q1: What is the expected lifetime of the programme/project (i.e. the period over which its activities, including capacity building and investment in equipment and infrastructure if relevant, are expected to produce a stream of benefits without requiring significant reinvestment)?**

*In answering this question, please consider not just the “official duration” of the programme/project, but also the duration of the benefits it is expected to generate. For instance, a 5-year education sector programme is in principle expected to support the development of skills that will be useful to the concerned individuals for many years; and a 5-year sector investment programme may support the development of infrastructure expected to be in use for several decades.*

- **Up to 10 years => consider primarily current climate variability**
- **10 years or more => consider both current climate variability and longer-term climate change**

Please briefly justify your answer if necessary:

**2. PROGRAMME/PROJECT POTENTIAL EXPOSURE TO THE EFFECTS OF CLIMATE VARIABILITY AND CHANGE**

	Yes	Possibly <sup>2</sup>	No
<p><b>Q2: Will programme/project activities be located in one or several geographical area(s) considered particularly exposed to the effects of climate variability and change?</b></p> <p><i>Geographical areas considered particularly exposed notably include:</i></p> <ul style="list-style-type: none"> <li>- arid or semi-arid regions;</li> <li>- fragile ecosystems including tundra ecosystems and mountain ecosystems;</li> <li>- areas depending on water from glaciers;</li> <li>- small island countries;</li> <li>- low-lying coastal zones;</li> <li>- deltas, estuaries and floodplains.</li> </ul>			
<p>Please specify briefly. If the answer is 'Yes' or 'Possibly', please indicate the extent of potential exposure (e.g. all or most activities located in an exposed area, or some activities only).</p>			
<p><b>Q3: Will the programme/project include activities in at least one domain considered particularly exposed to the effects of climate variability and change?</b></p> <p><i>Domains considered particularly exposed notably include:</i></p> <ul style="list-style-type: none"> <li>- agriculture, forestry, fisheries (incl. food security and rural development);</li> <li>- water supply and water resource management;</li> <li>- nature conservation, natural resource management, land use planning and management;</li> <li>- energy supply, in particular hydropower;</li> <li>- infrastructure in general (including urban and transport infrastructure);</li> <li>- health.</li> </ul>			
<p>Please specify briefly. If the answer is 'Yes' or 'Possibly', please indicate the extent of potential exposure (e.g. all or most activities related to an exposed domain, or some activities only).</p>			

<sup>2</sup> To be determined at a later stage and/or further investigated.

**3. PROGRAMME/PROJECT SENSITIVITY AND VULNERABILITY TO THE EFFECTS OF CLIMATE VARIABILITY AND CHANGE**

	Yes	Possibly	No
<p><b>Q4: Considering the <u>specific</u> nature and location of planned activities, the available information on current climate variability and projections of future climate trends, could climate variability and change jeopardise the achievement of programme/project objectives and expected results, in the short or in the longer term?</b></p> <p><i>In answering this question, please notably consider the following aspects:</i></p> <ul style="list-style-type: none"> <li>- Does the achievement of the programme/project's objectives and results depend significantly on the use of environmental resources, the availability, productivity or regeneration of which may be threatened by the effects of climate variability and change?</li> <li>- Is the programme/project vulnerable to natural or environmental disasters, the frequency and/or severity of which may increase as a result of climate change?</li> <li>- Does the programme/project aim to support livelihoods, in particular those of poor/vulnerable populations, in a context in which some livelihood assets (human, natural, physical and/or social capital) could be affected by climate variability and change?</li> </ul>			
<p>Please specify briefly. If the answer is 'Yes' or 'Possibly', please indicate which objectives and expected results could be jeopardised, and to which extent (e.g. significantly, to some extent, to a minor extent).</p>			
<p><b>Q5: Do some of the proposed programme/project stakeholders (i.e. individuals, communities, organisations involved in implementation and/or directly targeted by it) belong to poor or socio-economically vulnerable groups?</b></p>			
<p>Please specify briefly. If the answer is 'Yes' or 'Possibly', please identify the poor and/or socio-economically vulnerable stakeholders.</p>			

	Yes	Possibly	No
<p><b>Q6: Do some of the proposed programme/project stakeholders lack the <u>awareness, information and/or institutional capacity</u> required to adapt to climate variability and change, notably through the adoption of risk prevention and mitigation measures?</b></p>			
<p>Please specify briefly. If the answer is 'Yes' or 'Possibly', please identify the main stakeholders that might lack awareness, information and/or institutional capacity to address climate risks.</p>			
<p><u>In contrast</u>, are there stakeholders in the programme/project that may actually have the level of awareness, information and institutional capacity required to address climate risks? And/or could the programme/project draw on existing risk management programmes or policy instruments to support its climate risk management needs (e.g. disaster prevention and preparedness plans, adaptation projects underway, national or sub-national policy measures, strategies and/or programmes aimed at strengthening resilience and mitigating risks)? If so, please specify briefly.</p>			
<p><b>Q7: Do some of the proposed programme/project stakeholders lack the <u>resources</u> required to adapt to climate variability and change, notably through the adoption of risk prevention and mitigation measures?</b></p>			
<p>Please specify briefly. If the answer is 'Yes' or 'Possibly', please identify the main stakeholders expected to lack the required resources.</p>			

	Yes	Possibly	No
<p><u>In contrast</u>, are there stakeholders in the programme/project that may actually have the resources required to address climate risks? And/or could the programme/project draw on some existing funding instruments, insurance or other financial mechanisms to support its climate risk management needs? If so, please specify briefly.</p>			

Based on your answers to Q1 – Q7 (including answers to sub-questions):

**A. How do you assess the overall level of climate risk to which the programme/project is subject in its current design/conceptual frame?**

Estimated overall risk level	Recommended action
<ul style="list-style-type: none"> <li>- <b>High risk:</b> Large components of the programme/project are subject to climate risks, and considering existing capacities and resources as well as the vulnerability of programme/project stakeholders, the expected effects of climate variability and change could seriously jeopardise the achievement of objectives and expected results.</li> </ul>	<p>Undertake climate risk assessment or equivalent detailed study of risks and possible adaptation/risk mitigation options.</p> <p>In extreme cases, consider abandoning the programme/project or opting for a less risky alternative.</p>
<ul style="list-style-type: none"> <li>- <b>Medium risk:</b> Some elements of the programme/project are subject to climate risks, but considering existing capacities and resources as well as the vulnerability of programme/project stakeholders, the risk to the project as a whole and to the achievement of its objectives and results exists but is limited and can be managed.</li> </ul>	<p>Further investigate, on a selective basis, climate risks and possible adaptation and/or risk mitigation options in the context of design/formulation studies.</p>
<ul style="list-style-type: none"> <li>- <b>Low or no risk:</b> The programme/project is not or not much subject to climate risks. Considering existing capacities and resources, the relatively minor risks that might exist can be controlled or do not jeopardise the achievement of objectives and expected results.</li> </ul>	<p>Depending on circumstances:</p> <ul style="list-style-type: none"> <li>- either proceed with design/formulation without further consideration of climate risks;</li> <li>- or further investigate some (relatively minor) risks and adaptation/mitigation options in the context of design/formulation studies.</li> </ul>

**B. Can you already at this stage identify options (e.g. specific measures, technical or conceptual changes in programme/project design, alternative ways of achieving objectives) for increasing the resilience of the programme/project to climate risks?**

If so, please specify briefly.

**4. RISK OF MALADAPTATION**

	Yes	Possibly	No
<p><b>Q8: Could the programme/project inadvertently result, directly or indirectly, in increased vulnerability of human communities and/or ecosystems to the effects of climate variability and change?</b></p> <p><i>Examples of programmes/projects that may increase vulnerability include:</i></p> <ul style="list-style-type: none"> <li>- infrastructure projects promoting the development of new human settlements in areas particularly exposed to climate-related disasters, such as coastal zones vulnerable to sea level rise, or flood-prone areas;</li> <li>- programmes/projects that reduce the availability or accessibility of natural resources (e.g. water) already threatened by climate variability or change;</li> <li>- programmes/projects that reduce the availability of ecosystem services (e.g. flood regulation) already threatened by climate variability or change.</li> </ul>			
<p>Please specify briefly.</p>			
<p><u>In contrast</u>, could some elements of the programme/project contribute to a reduction in the vulnerability of human communities and/or ecosystems to the effects of climate variability and change? If so, please specify briefly.</p>			

Based on your answers to Q8:

**C. How do you assess the overall level of maladaptation risk associated with the programme/project in its current design/conceptual frame?**

Estimated overall risk level	Recommended action
<ul style="list-style-type: none"> <li>- <b>High risk:</b> The programme/project could significantly exacerbate the vulnerability of human communities and/or ecosystems to the effects of climate variability and change.</li> </ul>	<p>Undertake climate risk assessment or equivalent detailed study of risks and possible risk mitigation options, with a focus on maladaptation risks.</p> <p>In extreme cases, consider abandoning the programme/project or opting for a less risky alternative.</p>
<ul style="list-style-type: none"> <li>- <b>Medium risk:</b> Some elements of the programme/project could somewhat exacerbate the vulnerability of human communities and/or ecosystems to the effects of climate change – however this impact is limited and can probably be managed.</li> </ul>	<p>Further investigate, on a selective basis, maladaptation risks and possible risk mitigation options in the context of design/formulation studies.</p>
<ul style="list-style-type: none"> <li>- <b>Low or no risk:</b> The programme/project is not expected to exacerbate the vulnerability of human communities and/or ecosystems to the effects of climate variability and change – or could even reduce such vulnerability.</li> </ul>	<p>Depending on circumstances:</p> <ul style="list-style-type: none"> <li>- either proceed with design/formulation without further consideration of maladaptation risks;</li> <li>- or further investigate some (relatively minor) maladaptation risks and mitigation options in the context of design/formulation studies.</li> </ul>

**D. Can you already at this stage identify options (e.g. specific measures, technical or conceptual changes in programme/project design, alternative ways of achieving objectives) for increasing the climate resilience of the programme/project's target beneficiaries, of wider society and/or of natural systems?**

If so, please specify briefly.

**5. PROGRAMME/PROJECT POTENTIAL IMPACTS ON CLIMATE**

**Q9: Which greenhouse gases (GHGs) are likely to be emitted, directly and indirectly, as a result of programme/project activities?**

*GHGs include carbon dioxide (CO<sub>2</sub>), methane (NH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), ozone (O<sub>3</sub>), and some industrial gases (e.g. chlorofluorocarbons, hydrofluorocarbons, sulphur hexafluoride, ...).*

Please specify briefly, if relevant connecting emissions with specific activities and providing an indication of the potential magnitude of emissions (e.g. significant or minor) at the scale of the programme/project (*not at the national or global scale*).

	Yes	Possibly	No
<p><b>Q10: Even if the programme/project's GHG emissions are insignificant at the global and the national scale, can you identify any options to reduce such emissions through appropriate programme/project design or technological choices?</b></p>			
<p>Please specify briefly.</p>			
<p><b>Q11: Is the programme/project expected to create carbon sinks, i.e. natural structures and processes that remove carbon dioxide from the atmosphere and store it at least temporarily – or does it have the potential to do so given appropriate design or technological choices?</b></p>			
<p>Please specify briefly.</p>			

**Main sources:**

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**EC (2009b)** *Guidelines on the Integration of Environment and Climate Change in Development Cooperation*. European Commission, Brussels. See in particular Annex 7 'Project environmental screening'.

**OECD (2009a)** *Integrating Climate Change Adaptation into Development Co-operation: Policy guidance*. OECD Publishing, Paris. [Read-only, browse-it edition] See in particular Box 8.3 'An approach to screen for climate change risk' (p. 107), and Annex A 'Examples of Tools and Screening Approaches for Adaptation to Climate Change'.

**Olhoff A. & Schaer C. (2010)** *Screening tools and guidelines to support the mainstreaming of climate change adaptation into development assistance: A stocktaking report*. See in particular Chapter 5 'Climate risk screening tools, guidance, and portfolio screenings: a comparative overview and analysis'.

**USAID (2007)** *Adapting to Climate Variability and Change: A guidance manual for development planning*. See in particular 'Step 1: Screen for vulnerability' in the section on 'Integrating V&A elements into projects' (pp. 10-13).

## Annex 6.2 – Terms of Reference for a climate risk assessment

### Note:

Elements highlighted in yellow are the key elements that distinguish a climate risk assessment from an adaptation and vulnerability assessment (see Module 5, Annex 5.1).

### 1. BACKGROUND

*[Provide background information: Who is commissioning the assessment? What has driven the decision to conduct the assessment (e.g. formulation of a new programme/project or review of an ongoing one)? How, by whom and for what purposes will assessment results be used?]*

*[Provide a description of the programme/project for which CRA is to be undertaken, including its location, objectives, the nature of planned activities, the stakeholders involved, the final beneficiaries. Specify the scope and scale of the assessment: geographical scope, scale at which to conduct the analysis (e.g. region, district, community, ecosystem, landscape, river basin), time horizon, any requested focus on specific areas, sectors, risks or populations.]*

*[If a climate risk screening exercise was conducted – which by the way may have triggered the decision to conduct CRA, provide information about the methodology and results of this exercise, including a list of the identified climate risks and risk of maladaptation. Full details may be provided in an annex to the ToR.]*

*[Make reference to any existing studies and information sources that should be used in carrying out the assessment.]*

### 2. DEFINITIONS

The following definitions apply to these ToR and (unless otherwise specified as a result of scoping work) shall apply to the climate risk assessment:

- **Adaptation** to climate variability and change: a process of adjustment involving the adoption of measures (including changes in procedures, practices and structures) to protect natural and human systems against the current and anticipated harmful effects of climate variability and change, to exploit any opportunities they may generate, and to ensure the sustainability of investment and development interventions in spite of current climate risks and potentially increasingly difficult climatic conditions.
- **Adaptive capacity**: the extent to which a system, individual or group has the capabilities, and/or has access to the information, resources and institutions, required to cope with existing or anticipated external stresses – and in this specific context, to adapt to climate variability and change, notably through the adoption of risk prevention and mitigation measures.
- **Climate**: the average characteristics of meteorological conditions, calculated over a long period (typically 30 years or more).
- **Climate change**: a shift in average climate parameters and/or in the magnitude of climate variability observed and persisting over long periods (typically decades or longer).
- **Climate variability**: range of variation in climate parameters, characterised by the difference between observed values and average values calculated at various temporal scales; climate variability is an inherent feature of the climate system but tends to be exacerbated by climate

change; 'current climate variability' typically refers to variability observed over periods shorter than 10 years.

- **Exposure** to climate change: the extent to which one is exposed to the physical manifestations of climate change, considering that their character, magnitude and likelihood and the rate of variation of climate will vary in nature and intensity across regions of the world.
- **Hazard**: a potentially damaging physical event, action, situation or phenomenon; a *climate hazard* is a manifestation of climate variability or change, or a specific type of climate event (discrete or continuous, one-off or recurrent), holding the potential to cause harm.
- **Institutions**: the rules, norms, structures and other social arrangements that shape and regulate human behaviour and interactions, and notably support decision making.
- **Maladaptation**: an inadequate response to the challenge posed by climate change, by which 'business-as-usual' development interventions that overlook the implications of climate change inadvertently result in increased vulnerability to climate change; the term is also used to designate an inadequate adaptation response, which fails to reduce vulnerability to climate change and instead ends up increasing it, displacing it or reducing future potential for adaptation.
- **Resilience**: the ability of a system, individual or group to absorb disturbances, overcome and recover from a critical situation, and generally adapt to stress and change; the concept may apply to natural systems (ecological resilience) as well as social systems (social resilience).
- **Risk**: the combination of: (i) the probability (or frequency) of occurrence of a defined hazard resulting in adverse consequences; and (ii) the magnitude of these consequences, given the interaction of the hazard with the properties of the exposed system; *climate risks* thus result from the combination of the probability or frequency of occurrence of specific climate hazards, and the sensitivity and vulnerability (including adaptive capacity) of those exposed to such hazards.
- **Sensitivity** to climate variability and change: how severely an individual or system is actually affected when exposed to climate variability and change, considering its specific susceptibility to disturbances and stress.
- **Vulnerability** to climate variability and change: the extent to which a system, individual or group of people is susceptible to, and unable to cope with, the adverse effects of climate variability and change; vulnerability depends on *exposure* to climate variability and change, *sensitivity* to their effects and *adaptive capacity*.

### 3. OBJECTIVES

The objectives of this climate risk assessment are to:

- identify, describe and assess the climate-related risks to which the programme/project is exposed and that may jeopardise the achievement of its objectives and results, as well as the risks of maladaptation that may inadvertently arise from its implementation;
- identify and describe possible adaptation and vulnerability reduction measures, aimed at reducing and mitigating risks;
- assess these options;
- formulate concrete recommendations with regard to programme/project design and the measures required to make the planned intervention more climate-resilient.

## 4. EXPECTED RESULTS

The assessment will be conducted in two phases:

- A *scoping study* will first be undertaken to determine the exact scope and priorities of the climate risk assessment and adjust the methodology, on the basis of a preliminary review of available information and initial stakeholder consultation, and taking account of the time and resources available for the entire exercise.<sup>[3]</sup>
- The '*core study*' will then be undertaken in accordance with the results of the scoping study, as approved by and agreed with the contracting authority.

### 4.1 Scoping study

The scoping study will provide:

- A description of current climate conditions, observed climatic trends and projected future climate conditions (including a description of prevailing uncertainties), **in the geographical area of the programme/project.**
- A description of the related hazards (e.g. sea level rise, high-impact storms, droughts) and potential impacts, **with a focus on those likely to be most relevant for the considered programme/project.**
- The identification of **key stakeholders directly and indirectly involved in the programme/project**, and their specific interests, needs and concerns with regard to climate variability and change (e.g. livelihoods at risk).
- The identification of key ecosystems and capital assets deemed vulnerable to current and future climate hazards (and why they are deemed vulnerable).
- The preliminary identification of key **climate-related vulnerabilities and risks associated with the programme/project** (this aspect is to be further developed in the core study) – including ways in which the programme/project, combined with the anticipated effects of climate change, may **inadvertently result in maladaptation.**
- The identification of gaps in knowledge and available information for designing a robust adaptation plan, additional data needs, and the extent to which extra information and data could be acquired during the core study.
- A description of the impact, vulnerability and risk assessment methodologies (quantitative and/or qualitative) to be used in the core study.
- A description of the methodologies (quantitative and/or qualitative) to be used for identifying and assessing possible adaptation options and measures.
- A stakeholder engagement strategy.
- An indication of the time frame and resources needed to carry out the core study.

*[An indication of the maximum budget available for the climate risk assessment can be given here to support 'realistic' scoping work.]*

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<sup>3</sup> *[The scoping study may be undertaken in-house, provided sufficient human resources are available. In this case, the outcome of the scoping study is the production of detailed ToR for the core study – and the scoping study would not include a detailed section on methodology (as this aspect is best left to the experts in charge of conducting the assessment) but may include some specific expectations. The detailed methodology and the stakeholder engagement strategy would then be part of the consultants' proposal, with a possibility of adjustment in the inception report to be submitted [one month] after the start of the work.]*

## 4.2 Core study

The core study will identify, describe and assess in more detail:

- Key climate-related vulnerabilities<sup>4</sup>, and the level of adaptive capacity<sup>5</sup>, of the stakeholders, ecosystems and infrastructure/human systems **associated with the programme/project**.
- **Key climate-related risks bearing on the programme/project, over its entire lifetime**, as a result of the combination of exposure to climate hazards, vulnerability and adaptive capacity. Climate-related risks can be of three types:
  - **Risks to successful programme/project implementation** in terms of achieved outputs and immediate results (e.g. destruction of project infrastructure, failure to increase yields due to drought).
  - **Risks to the realisation of desired programme/project outcomes and longer-term impacts** (e.g. positive poverty reduction outcomes offset in the medium and long term by climate change impacts on livelihoods, food prices and human health).
  - **Risks that the programme/project will increase the vulnerability of some groups or human/natural systems** (e.g. loss of access to dry-season grazing lands for pastoralists) **and drive maladaptation** (e.g. increased water use in an area at risk of increasing water scarcity). The combined impacts of climate change and programme/project implementation on the concerned geographical area(s), and how they interact, may have to be considered.
- **Possible adjustments to programme/project design, and/or adaptation and vulnerability reduction measures**, to increase the overall level of climate resilience.

Based on the above assessments, the core study will also deliver conclusions and recommendations on:

- The **suitability of proceeding with the programme/project, in view of climate-related risks**<sup>6</sup>.
- The **need for more or less significant adjustments to programme/project design**.
- The possibility of addressing climate risks by **integrating targeted and/or more general adaptation and vulnerability reduction measures**.

Recommendations will be presented in the form of **a prioritised, concrete adaptation action plan for the programme/project**. To support prioritisation, the proposed adjustments and measures should be assessed from the point of view of their relevance to stakeholder needs, effectiveness, efficiency, feasibility, acceptability, compatibility with potential future needs, robustness across possible climate change scenarios, and ability to deliver developmental 'co-benefits' regardless of the occurrence of climate change (level of 'regret').

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<sup>4</sup> Assessed vulnerabilities are likely to include: (i) biophysical vulnerability, driven by environmental factors (e.g. location, topography, other physical attributes of the landscape, ecosystem characteristics) and ecological processes; and (ii) social vulnerability, driven by socio-economic, cultural and institutional factors (e.g. population size, composition and density, education, incidence and depth of poverty, livelihood patterns, land uses, infrastructure, access to services, regulations, governance structures and processes).

<sup>5</sup> Considering in particular: (i) the prevailing level of awareness of climate-related risks; (ii) the ability and willingness of stakeholders to address them; (iii) their ability to communicate risks and mobilise people and resources for action; (iv) the existence of past, ongoing and planned capacity development initiatives that could support adaptation efforts; and (v) the existence of other adaptation interventions and initiatives on which to build new adaptation efforts.

<sup>6</sup> In exceptional cases, a programme/project may be found to be inherently unsustainable or leading to maladaptation, with no or insufficient possibilities of improvement.

Where relevant and possible, the presentation of assessment results will make use of visual tools (e.g. risk maps combining hazard and vulnerability features), graphs, diagrams, figures and/or tables to facilitate the communication of results and enhance their use for advocacy and decision-making purposes.

## 5. METHODOLOGICAL ASPECTS

The initial proposal and scoping report should describe by which methods data will be collected and analysed, specifying where relevant which methods will apply to vulnerability and risk assessment and which ones to the assessment of adaptation options. The choice of methodological tools should be coherent with the scale of the analysis, the experience of the expert team and the resources available for the study.

The involvement of stakeholders in the study is a key success factor – hence the request to develop a stakeholder engagement strategy as part of the scoping work. Particular attention should be paid to involving typically less represented groups such as women, indigenous peoples and minority groups **(as relevant based on the nature and scope of the considered programme/project)**.

## 6. WORK PLAN

A preliminary work plan including the proposed time schedule, covering the scoping and core studies, must be included in the initial proposal. A more detailed work plan for the core study must be included in the scoping study.

## 7. EXPERTISE REQUIRED

The proposed team of experts should (collectively) have proven skills and experience in the following areas *(add or remove elements on the basis of needs, focusing on essential skills in view of the context and objectives of the study, and taking account of available resources which may limit the size of the team of experts and therefore the range of available competences)*:

- Climate and climate change science.
- The following technical domains: *(specify, e.g. coastal zone management, water resource management, forestry, disaster risk reduction)*.
- Social sciences, with expertise in *(specify, e.g. economics, institutions, governance, capacity building)*.
- Development planning and the management of development programmes or projects, with expertise in *(specify, e.g. rural development, health, transport)*.
- Impact and/or risk assessment (e.g. environmental impact assessment, socio-economic impact assessment, technological risk assessment).
- Implementation of participatory methods (in relation to the stakeholder engagement strategy).

For each expert proposed, a *curriculum vitae* must be provided of no more than *(four)* pages setting out the relevant qualifications and experience.

## 8. REPORTING

### 8.1 Scoping study report

The draft scoping report in [(number) copies (double-sided printing)] [electronic version], drafted in (language), is to be presented to (names and organisations) for comments by (date). Comments should be expected by (date). These comments will be taken into account in preparing the final scoping report. The final scoping report is to be submitted in [(number) copies (double-sided printing)] [electronic version] by (date).

### 8.2 Core study report

The draft study report in [(number) copies (double-sided printing)] [electronic version], drafted in (language), is to be presented to (names and organisations) for comments [at a date to be agreed at the time of accepting the scoping report] [by (date) at the latest]. Comments should be expected within (number) weeks after submitting the draft report. These comments will be taken into account in preparing the final study report. The final study report is to be submitted in [(number) copies (double-sided printing)] [electronic version] within (number) weeks after receiving the last comments.

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#### Main sources:

**Brooks N. & Adger W.N. (2004)** Assessing and Enhancing Adaptive Capacity. In: Lim B. & Spanger-Siegfried E. (eds.) (2004) *Adaptation Policy Frameworks for Climate Change: Developing Strategies, Policies and Measures*. United Nations Development Programme/Cambridge University Press, New York.

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**Dessai S. & Hulme M. (2004)** Does climate adaptation policy need probabilities? *Climate Policy*, vol. 4 (2) 107-128.

**EC (2011)** *Climate Risk Assessment: an Introduction*. Training materials developed by Nils Brook for the EuropeAid staff training programme.

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**Jones R. & Mearns L. (2004)** Assessing Future Climate Risks. In: Lim B. & Spanger-Siegfried E. (eds.) (2004) *Adaptation Policy Frameworks for Climate Change: Developing Strategies, Policies and Measures*. United Nations Development Programme/Cambridge University Press, New York.

**Mehrotra S., Natenzon C.E., Omojola A., Folorunsho R., Gilbride J. & Rosenzweig C. (2009)** *Framework for City Climate Risk Assessment: Buenos Aires, Delhi, Lagos, and New York*. World Bank commissioned research for the 5<sup>th</sup> Urban Research Symposium Cities and Climate Change, Marseille, France, 2009.

**OECD (2009a)** *Integrating Climate Change Adaptation into Development Co-operation: Policy guidance*. OECD Publishing, Paris.

**Olhoff A. & Schaer C. (2010)** *Screening tools and guidelines to support the mainstreaming of climate change adaptation into development assistance: A stocktaking report*. Environment & Energy Group, United Nations Development Programme, New York.

## Annex 6.3 – Terms of Reference for a strategic environmental assessment addressing climate-related aspects

### Note:

The model Terms of Reference (ToR) provided here are intended for SEAs undertaken in connection with the formulation of a national or sector policy, strategy or programme. Most elements of these ToR will also be relevant for an SEA undertaken during the review and implementation of a policy, strategy or programme.

### 1. BACKGROUND

A Strategic Environmental Assessment (SEA) is required [for the preparation] [in support of the implementation] of *(title of the policy/strategy/programme)*.

The major documents to consider are *(mention the main documents and their status or stage of preparation)*.

*(Mention other pertinent background information, such as key stakeholders, legal requirements, existing Country Environmental Profile or equivalent document).*

*(Mention any policy, strategy or programme alternatives to be assessed; if no alternatives have been defined, state this as well).*

*(Explain the reasons why an SEA is required and which decisions it might influence).*

### 2. OBJECTIVES

The objective of this SEA is to identify, describe and assess:

- the likely significant effects on the environment of implementing *(title of the policy/strategy/programme)*;
- as well as the most important environmental and natural resource-related constraints bearing on the implementation of this [policy] [strategy] [programme];

to be taken into account in its preparation, review or implementation. The SEA will provide decision makers with relevant information to assess environmental challenges and other considerations (including climate-related ones) with regard to *(title of the policy/strategy/programme)*. This information should help to ensure that environmental and climate-related concerns are appropriately integrated in the decision-making and implementation processes.

### 3. EXPECTED RESULTS

The assessment will be conducted in two phases:

- A *scoping study* will first be undertaken to determine the exact scope and priorities of the strategic environmental assessment and adjust the methodology, on the basis of a preliminary review of available information and initial stakeholder consultation, and taking account of the time and resources available for the entire exercise.
- The *'core study'* will then be undertaken in accordance with the results of the scoping study, as approved by and agreed with the contracting authority.

### 3.1 Scoping study

The SEA scoping study will provide:

- A brief description of the considered [policy] [strategy] [programme] and its alternatives.
- A brief description of the relevant institutional and legislative framework (including the policy-making and/or planning process that this SEA is expected to inform).
- A brief presentation of the environmental policies, objectives, standards and regulations relevant to the considered [policy] [strategy] [programme].
- An identification of the key stakeholders and their concerns. Key stakeholders may include national and/or sector authorities, environmental agencies, non-governmental organisations, representatives of the public, and in general groups potentially affected by the likely environmental impacts of implementing the considered [policy] [strategy] [programme].
- An identification of the key interactions between the considered [policy] [strategy] [programme] and the environment (including climate-related aspects).
- A description of the scope of the environmental baseline to be prepared, including (*as far as this aspect is relevant*) the geographical units to be considered.
- A description of the impact identification and evaluation methodologies to be used in the SEA study.
- A stakeholder engagement strategy.
- An indication of the time frame and resources needed to carry out the SEA core study.

*[An indication of the maximum budget available for the SEA can be given here to support 'realistic' scoping work.]*

### 3.2 SEA core study

The SEA core study will deliver the following:

- An environmental baseline, i.e. a description of the current state of the environment (focused on key environmental components identified by the scoping study), environmental pressures and environmental trends under the assumption of no implementation of the considered [policy] [strategy] [programme] or 'business-as-usual' development, taking into account the expected effects of climate change.
- The identification and evaluation of environment-related risks, constraints and opportunities – including climate- and natural resource-related aspects – which could affect (positively or negatively) the relevance, effectiveness, efficiency and/or sustainability of the considered [policy] [strategy] [programme]. [This should be done for each alternative being studied.]
- The identification and evaluation of the (positive and negative) impacts the considered [policy] [strategy] [programme] could have on the environment – including the positive or negative contribution to greenhouse gas emissions (if significant relative to national emission levels). [This should be done for each alternative being studied.] The significance of impacts should be assessed taking into account their characteristics<sup>7</sup>, the views and concerns of stakeholders and the sensitivity of the environment.

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<sup>7</sup> e.g. duration, probability, magnitude, mitigability, reversibility.

- The identification and evaluation of potential impacts in terms of vulnerability to climate risks – i.e. whether and how the considered [policy] [strategy] [programme] may lead to increased or reduced vulnerability to climate variability and climate change.
- An analysis of the performance indicators proposed for the considered [policy] [strategy] [programme] from an environmental perspective, i.e. with regard to their usefulness to identify the environmental effects (positive and negative) of [policy] [strategy] [programme] implementation or to monitor environmental and climate-related risks and constraints. A proposal should be made for the improvement of the existing performance assessment framework from the point of view of environmental and climate-related monitoring.
- An assessment of the capacities of regulatory authorities and other stakeholders to address environmental and climate-related challenges.
- Conclusions and recommendations for [policy] [strategy] [programme] formulation and implementation, including recommendations on: (i) on how to optimise positive impacts and make the best out of environment- and natural resource-related opportunities; (ii) how to mitigate negative effects, adapt to environmental constraints and manage climate-related risks. Recommendations may concern the selection of an alternative (if more than one alternative is envisaged), changes in [policy] [strategy] [programme] design, the integration of environment- and climate-related adaptation and mitigation measures, implementation and monitoring modalities, and institutional and capacity development measures.

The limitations of the SEA and its assumptions should be presented. The recommendations should take into account the views presented by the stakeholders and explain how these were integrated. If some concerns were not integrated in the final recommendations, the reasons thereof should be given.

Where relevant and possible, the presentation of assessment results will make use of visual tools (e.g. vulnerability maps), graphs, diagrams, figures and/or tables to facilitate the communication of results and enhance their use for advocacy and decision-making purposes.

## 5. METHODOLOGICAL ASPECTS

The initial proposal and scoping report should describe by which methods data will be collected and analysed, specifying where relevant which methods will apply to the identification and assessment of risks, constraints, opportunities and impacts, and which ones to the assessment of adaptation and mitigation options. The choice of methodological tools should be coherent with the scale of the analysis, the experience of the expert team and the resources available for the study.

The involvement of stakeholders in the study is a key success factor – hence the request to develop a stakeholder engagement strategy as part of the scoping work. Particular attention should be paid to involving typically less represented groups such as women, indigenous peoples and minority groups (as relevant based on the scope of the assessment).

## 6. WORK PLAN

A preliminary work plan including the proposed time schedule, covering the scoping and core studies, must be included in the initial proposal. A more detailed work plan for the core study must be included in the scoping study.

## 7. EXPERTISE REQUIRED

The proposed team of experts should (collectively) have proven skills and experience in the following areas *[add or remove elements on the basis of needs, focusing on essential skills in view of the context and objectives of the study, and taking account of available resources which may limit the size of the team of experts and therefore the range of available competences]*:

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For each expert proposed, a *curriculum vitae* must be provided of no more than *(four)* pages setting out the relevant qualifications and experience.

## 8. REPORTING

### 7.1 Scoping study report

The draft scoping report in *[(number) copies (double-sided printing)]* [electronic version], drafted in *(language)*, is to be presented to *(names and organisations)* for comments by *(date)*. Comments should be expected by *(date)*. These comments will be taken into account in preparing the final scoping report. The final scoping report is to be submitted in *[(number) copies (double-sided printing)]* [electronic version] by *(date)*.

### 7.2 Core SEA study report

The draft study report in *[(number) copies (double-sided printing)]* [electronic version], drafted in *(language)*, is to be presented to *(names and organisations)* for comments [at a date to be agreed at the time of accepting the scoping report] [by *(date)* at the latest]. Comments should be expected within *(number)* weeks after submitting the draft report. These comments will be taken into account in preparing the final study report. The final study report is to be submitted in *[(number) copies (double-sided printing)]* [electronic version] within *(number)* weeks after receiving the last comments.

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**Adapted from: EC (2009b) *Guidelines on the Integration of Environment and Climate Change in Development Cooperation*.** European Commission, Brussels. Annex 5 'Terms of Reference for a Strategic Environmental Assessment', pp. 95-103.