



Global Climate Change Alliance Support Facility

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

HANDOUT FOR PARTICIPANTS

MODULE 5

Raising awareness and building partnerships



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MODULE 5 – Raising awareness and building partnerships

TOPICS COVERED BY THE MODULE:

- Overall approach to raising awareness and building partnerships.
 - Assessing evidence: key tools and approaches
 - o Vulnerability and adaptation assessment
 - o Economic analysis
 - o Demonstration or pilot projects
 - Communication and advocacy strategy.
 - Mobilisation of key actors and partnership building.
 - Illustration: macroeconomic analysis in support of awareness raising and mainstreaming.
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KEY TOOLS AND APPROACHES:

- Communication and advocacy strategy.
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KEY CONCEPTS AND MESSAGES:

Overall approach to raising awareness and building partnerships

1. *Communication and advocacy* and *partnership building* are required to build a national consensus on and commitment to climate-resilient, low-emission development (UNDP-UNEP 2011).
 2. A pre-requisite for informing and implementing the communication and advocacy strategy, and engaging/mobilising key actors in view of building partnerships, is collecting, assessing and communicating the *available evidence* on climate change vulnerabilities and impacts, and on the relevance, effectiveness, efficiency and overall sustainability of possible responses (UNDP-UNEP 2011).
 3. The information contained in existing studies and reports should thus be assessed as a first step, and complemented by additional studies as needed. A number of tools can be of particular relevance to this and subsequent stages of the mainstreaming process (see Module 6 in particular):
 - vulnerability and adaptation assessments;
 - economic analysis (at the macro and meso levels);
 - demonstration or pilot projects (UNDP-UNEP 2011).
 4. Raising awareness and building partnerships relies on three ‘pillars’:
 - assessing available evidence, using the findings of relevant studies and demonstration/pilot projects;
 - engaging key actors;
 - and developing and implementing a communication and advocacy strategy in support of mainstreaming (World Bank n.d Guidance Note #1, UNDP-UNEP 2009 & 2011).
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Assessing evidence: vulnerability and adaptation assessments

5. To inform and convince decision makers, the findings of *vulnerability and adaptation assessments* (also known as ‘impact, vulnerability and adaptation assessments’) can be useful. Such assessments should consider both current and future vulnerability to the effects of climate change. They should typically focus on three units of analysis, at the appropriate geographical level and time horizon:
 - places: land, water, ecosystems, ‘natural capital’ and ‘built infrastructure’;
 - people: individuals, communities, ‘human capital’, livelihoods;
 - institutions: sectors, organisations, how they relate to each other, ‘social capital’ (Downing & Patwardhan 2004, UNDP-UNEP 2011).

6. Vulnerability and adaptation assessments rely on a mix of *climate science* (documentation of current exposure to climate risks, assessment of future changes in exposure) and *social science* (assessment of current and future vulnerabilities and adaptive capacity) (IPCC 2007c). The information required for building the assessments can be collected using a variety of techniques, including simulation modelling, expert judgment, impact assessments, scenario analysis, workshops, focus groups and stakeholder consultations (Downing & Patwardhan 2004, World Bank 2010e).

7. A model of Terms of Reference for a vulnerability and adaptation assessment is provided in **Annex 5.1**.

8. *Geographical Information Systems* (GIS) tools support vulnerability assessments by allowing the mapping of vulnerability factors (Economics of Climate Adaptation Working Group 2009, UNDP-UNEP 2011). Combining several vulnerability factors on a map helps visualise their location and assess possible synergies between them in specific locations; this supports the identification of ‘high-risk’ areas and the development and prioritisation of adaptation measures. **Figure 5.1** provides an illustration of the use of GIS to map assets vulnerable to sea level rise and coastal flooding in the capital of Samoa.

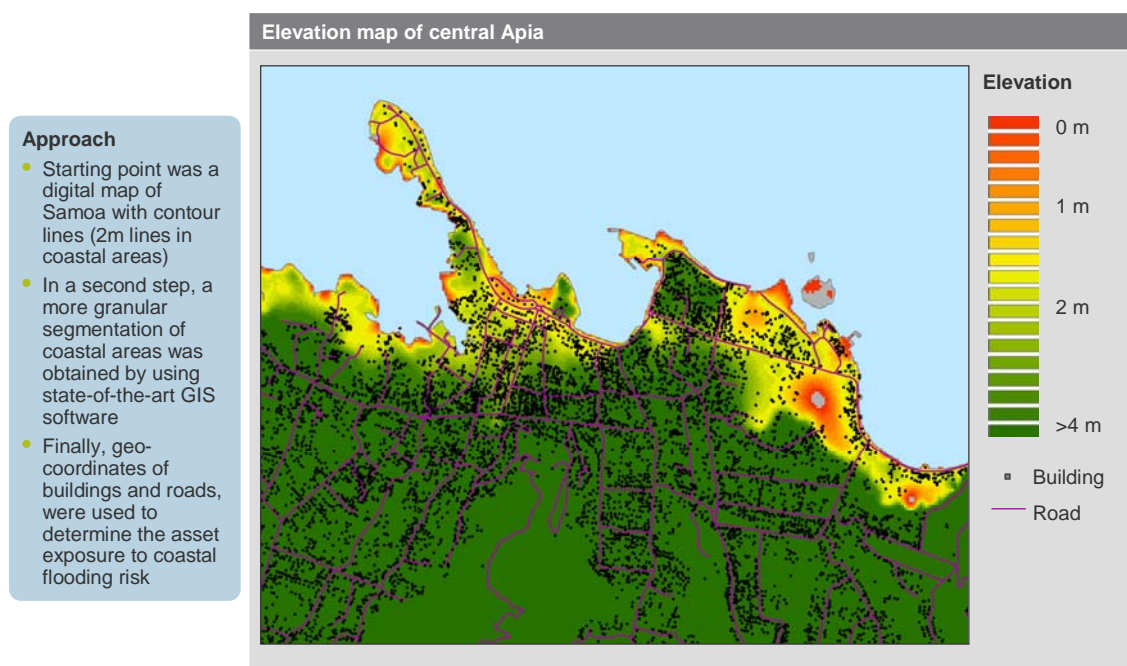
Assessing evidence: macro and meso economic analysis

9. *Economic analysis* may also be a powerful tool for motivating policy makers to take action. Economic analysis typically looks into:
 - the costs of inaction (climate-related losses and damage if nothing is done to adapt to climate-change and, in some cases, to adopt mitigation measures);
 - the net benefits of taking action (cost of action minus avoided losses and co-benefits obtained, cost of action minus savings realised) (EEA 2007, Economics of Adaptation Working Group 2009, UNDP-UNEP 2011).

10. At the *macro level*, the analysis is focused on the impact climate change, and adaptation and mitigation responses, may have on the national economy (e.g. GDP growth, public deficit and debt, overall employment). At the *meso level*, the analysis is focused at the level of key sectors or sub-sectors of the national economy (e.g. value added and employment in the tourism sector, impacts on some key infrastructure, impacts on public health).

Figure 5.1 – Illustration of the use of GIS to map asset vulnerability

Exhibit 3 – Highly granular geographic information has been used to segment assets according to their elevation above sea level



Source: Economics of Climate Adaptation (2009) *Test case on Samoa – Focus on risks caused by sea level rise*, Fig. 03, p. 122.

- Various *tools* are used for supporting the analysis, including cost-benefit and cost-effectiveness analysis (see Module 7), and integrated assessment models (IAMs). With *ad hoc* developments, IAMs can combine climate processes, economic activity, the biophysical and socio-economic impacts of climate change, and adaptation and mitigation responses, within a single, dynamic analytical framework; this allows for feedbacks and complex interactions to be taken into account (EEA 2007, de Bruin et al 2009, Agrawala et al 2010). IAMs can be particularly useful for macroeconomic analysis, where aggregated costs and benefits are typically considered. They can be used, for instance, to simulate interactions between adaptation and mitigation, to test for the ideal ‘mix’ of adaptation and mitigation, or even to optimise the mix of adaptation investments between adaptation-specific actions and measures that enhance adaptive capacity (de Bruin et al 2009, Agrawala et al 2010).
- There are multiple *methodological issues* to take into account when carrying out such economic analysis, including the identification of direct and indirect impacts of climate change, the isolation of adaptation costs from other costs, the definition of the scope of benefits, the valuation of non-market effects and indirect economic effects, the spatial and temporal aggregation of costs and benefits, the integration and treatment of uncertainty and irreversibility, the selection of adaptation and mitigation options (see Module 7 for this latter point). Methodological choices influence the outcome of the analysis and should thus be carefully considered; specialised expertise is required to produce robust results. Ideally, the analysis should consider not just overall costs and benefits but also the distribution of losses and benefits (among social groups, regions, over time, etc.) (World Bank n.d. Guidance Note #7, EEA 2007, Economics of Adaptation Working Group 2009, World Bank 2010b).

Assessing evidence: demonstration or pilot projects

13. *Demonstration or pilot projects* can be very useful in climate change mainstreaming to:

- help foster interest and commitment among national authorities and other stakeholders;
- test what works and does not work (relevance and effectiveness of specific measures in a given context);
- support lesson drawing (e.g. on enabling factors) for adaptive management;
- mobilise communities, local/regional authorities and other stakeholders, and develop capacities at this level;
- create both motivation and knowledge for replicating or scaling-up the pilot measures (UNDP-UNEP 2011).

Communication and advocacy strategy

14. Developing and implementing a *communication and advocacy strategy* notably involves:

- analysing the reasons for action and inaction on specific issues, at the societal, organisational and individual levels;
- designing the strategy to support key steps of the mainstreaming programme;
- setting specific objectives for both awareness-raising and partnership building, with a focus on achieving measurable outcomes;
- defining the target audience to be informed or influenced (e.g. finance and planning authorities; other possible champions – see below; environmental agencies, with a view to strengthening their profile);
- developing clear, policy-relevant messages, tailored as needed to the target audience(s);
- developing materials based on evidence collected (e.g. policy briefs, radio programmes);
- selecting and using appropriate communication channels for the various target groups (e.g. media, sector working groups) (UNEP 2005, UNDP-UNEP 2009, UNDP 2011).

Mobilisation of key actors and partnership building

15. Effective *partnership building* requires:

- identifying and mobilising key organisations involved in development, notably through awareness raising efforts targeted at their specific interests;
- identifying and mobilising champions, i.e. ‘respected, committed, influential individuals... who actively support and promote the cause of sustainable development’ (UNDP 2011: 42, quoting Binger et al 2002) and can assume a leadership role in steering the mainstreaming process¹;

¹ In the specific context of climate change adaptation, champions are also defined as ‘practitioners who take on the role of advocating the integration of climate change adaptation considerations into development planning at national, sector and subnational levels. These include high-level decision makers and government officials who serve as ambassadors for mainstreaming climate change adaptation’ (UNDP-UNEP 2011: 4). Champions for adaptation mainstreaming could for instance include senior officials from the ministries or agencies in charge of food security and disaster risk reduction, the ministry of finance, the ministry in charge of development planning, and also representatives from NGOs, political parties, regional and local governments (World Bank n.d. Guidance Note #1).

- building a political consensus and engaging key organisations in fruitful collaboration, which may require:
 - i. focusing on current climate risks as a starting point;
 - ii. using national and sector strategies, policy notes and related assessments to highlight climate change–development–poverty linkages and promote the mainstreaming of adaptation and mitigation measures;
 - iii. making the case for climate change mainstreaming in economic terms;
 - iv. demonstrating the feasibility and cost-effectiveness of some adaptation and mitigation measures;
 - v. participating in regional initiatives on adaptation and mitigation (World Bank n.d. Guidance Note #1, UNDP-UNEP 2009 & 2011).

Illustration: macroeconomic analysis in support of awareness raising and mainstreaming

16. The World Bank recently (2010) published the results of a series of studies (global and national) on ‘The economics of adaptation to climate change’ (see notably World Bank 2010b, World Bank 2010c). The focus of these studies is the costing of adaptation to climate change at the macro level, from the point of view of the public sector. For the purpose of the study, ‘adaptation costs’ were defined as the cost of actions attempting to restore pre-climate change welfare standards, whose marginal benefits exceed marginal costs, plus the cost of residual damage; only costs additional to the ‘normal’ costs of development (i.e. the ‘costs of doing more, doing different things, doing things differently’) were accounted as adaptation costs.
17. The studies were based on the following methodological approach (World Bank 2010b):
 - Projections of climate, water runoff, and baseline GDP and population until 2050 were used as a basis for defining climate change scenarios.
 - The main economic and social impacts were determined for a ‘wet’ and a ‘dry’ scenario, against a baseline ‘no climate change’ scenario. Changes in environmental conditions were used as a basis for determining changes in economic activity, impacts on physical infrastructure, impacts on people (from the health point of view) and impacts on their behaviour (from the consumption point of view).
 - On this basis, appropriate adaptation options were identified. Participatory scenarios were used to determine preferred strategies and the national acceptability of adaptation options, and to select the most appropriate ones.
 - The cost of the selected adaptation measures was then calculated, with a focus on the costs of ‘hard’ measures (e.g. climate-proofing of infrastructure, specific infrastructure). The costs of ‘soft’ investment (e.g. strengthening of territorial planning and property rights, education) was considered to be ‘zero’ since such measures are desirable anyway for development purposes.
 - Finally, national macroeconomic analysis was conducted, using Computed General Equilibrium (CGE) models to simulate the macroeconomic and cross-sectoral effects of both the impacts of and adaptation to climate change.
18. The global study concludes that the overall costs of adaptation for developing countries between 2010 and 2050 would amount to \$70–\$100 billion/year – a rather low percentage of these countries’ GDP (0.17% on average, although it is more in some regions and notably sub-Saharan Africa). However, this amount is not negligible: it is roughly equivalent to the current volume of aid flows. The highest costs are related to infrastructure, followed by coastal zone protection. The

absolute costs of adaptation are expected to rise over time, but relative costs to decrease (as a percentage of GDP). Other interesting findings include the following:

- Development is key to reducing vulnerability – but to have such effects, it must be inclusive, and it cannot be ‘business-as-usual’: adaptation must be ‘built in’.
- Reducing poverty, developing human capital, strengthening institutions, building resilience to current climate variability and generally building adaptive capacity are priorities.
- Adaptation is costly, but good policies and management can reduce the costs. In particular, flexibility should be built into both policies and infrastructure. Given the prevailing uncertainties, decisions on specific adaptation measures (i.e. those aimed at addressing specific planned impacts of climate change), especially where they involve long-lived investments, should be delayed. In the short term, there are plenty of no-regret and low-regret measures on which to focus and which can help reduce vulnerability. The provision of incentives for further development in areas exposed to severe weather risks should also be avoided.
- ‘Hard’ measures (e.g. infrastructure development) and ‘soft’ measures (e.g. disaster risk management, education and capacity building) are complementary and reinforce each other. In particular, capacity and institutional strengthening foster appropriate decision making with regard to the choice of ‘hard’ measures (World Bank 2010c).

19. These findings, including more detailed ones not reproduced here, support communication and advocacy, and provide some guidance for mainstreaming climate change adaptation into policy and planning processes.

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de Bruin K., Dellink R. & Agrawala S. (2009) *Economic Aspects of Adaptation to Climate Change: Integrated Assessment Modelling of Adaptation Costs and Benefits*. OECD Environment Working Paper no. 6, OECD Publishing, Paris. Available from: <http://www.oecd.org/env/workingpapers>.

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USEFUL WEBSITES:

Adaptation Learning Mechanism – a global knowledge-sharing platform on climate change adaptation, featuring an extensive resources database, country adaptation profiles, country project profiles, case studies, tools and guidance: <http://www.adaptationlearning.net/>

World Bank – Economics of Adaptation to Climate Change:

<http://climatechange.worldbank.org/content/economics-adaptation-climate-change-study-homepage>

Annex 5.1 – Terms of Reference for a vulnerability and adaptation assessment²

1. BACKGROUND

[Provide background information:

- *Who is commissioning the assessment?*
- *What has driven the decision to conduct the assessment?*
- *How, by whom and for what purposes will assessment results be used (e.g. evidence needed to formulate a national or sector policy and/or an adaptation strategy: basis for an estimation of adaptation costs; preparation of a national communication to the UNFCCC)?]*

[Specify the scope of the assessment: geographical scope, scale at which to conduct the analysis (e.g. region, district, community, ecosystem, landscape, river basin), time horizon of the study, any requested focus on specific areas, sectors, risks or populations.]

[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 vulnerability and adaptation assessment:

- **Adaptation deficit:** the failures in adapting to and managing existing climate variability and climate risks.
- **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:** the 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.

² Vulnerability and adaptation assessment is also relevant to Module 6 ‘Mainstreaming CC in national and sector policies, strategies and programmes’.

- **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.
- **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 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 objective of this vulnerability and adaptation assessment is to identify, describe and assess:

- The main vulnerabilities associated with current and future climate and climate variability.
- Existing coping strategies and adaptation responses to these risks.
- Current and future adaptation needs.
- Options and measures to enhance current and future resilience and adaptive capacity.

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 vulnerability and adaptation 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.^[3]

³ [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 will 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.]

- 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(s) concerned by the assessment and (to the extent possible) at the specified scale if any.
- A description of the related hazards (e.g. sea level rise, high-impact storms, droughts) and potential impacts.
- The identification of population groups, ecosystems, capital assets and economic sectors deemed vulnerable to current and future climate hazards, why they are deemed vulnerable, and what key climate-related vulnerabilities are (preliminary assessment only – this aspect is to be further developed in the core study).
- The identification of gaps in knowledge and available information, additional data needs, and the extent to which extra information and data could be acquired during the core study.
- A description of the impact and vulnerability 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 existing coping strategies and possible adaptation options and measures.
- The identification of key stakeholders in the assessment, their interests, needs and concerns. Stakeholders include vulnerable groups under current and expected future climate conditions; and those stakeholders likely to have valuable information on vulnerabilities and adaptive capacity (e.g. NGOs, research organisations, technical experts) and/or to be involved in the identification, selection and implementation of adaptation options and measures (e.g. sector authorities and agencies, authorities involved in national development planning, private sector actors and organisations).
- 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 vulnerability and adaptation assessment can be given here to support ‘realistic’ scoping work.]

4.2 Core study

The core study will provide a description and assessment of:

- The main vulnerabilities and vulnerability drivers⁴ associated with current climate and climate variability, and the level of adaptive capacity⁵, in relation to affected populations, ecosystems, capital assets and economic sectors.

⁴ 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).

⁵ 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

- Existing coping strategies.
- Gaps in adaptation to current climate conditions and risks, and possible adaptation options and measures to reduce this ‘adaptation deficit’.
- The main vulnerabilities associated with future climate in the context of climate change, and the level of adaptive capacity, in relation to affected populations, ecosystems, capital assets and economic sectors.
- Future adaptation needs, and possible adaptation options and measures to enhance future resilience and adaptive capacity in view of the expected changes.
- Conclusions and recommendations on the key features of an adaptation strategy, including an indication of which options and measures should be implemented by priority.

The proposed options 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’). Urgency in the face of existing problems may also be used as a criterion for prioritisation.

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 vulnerability 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 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 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.

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.

Main sources:

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