EuropeAid

RESULTS OF THE PILOT STUDY OF CLIMATE CHANGE SCREENING OF THE EC'S DEVELOPMENT COOPERATION PORTFOLIO

Final Report

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The present report was prepared under the lead of a Steering Group with representatives of EuropeAid Cooperation Office (Unit E6), DG Relex (Unit L3) DG Development (Unit B2) and DG Environment (Unit C1). The views expressed here are solely those of the consultants, and do not necessarily represent those of the European Commission.
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ACRONYMS AND ABBREVIATIONS

CC	Climate Change
CCAD	Central America's Environment and Development Commission
CEP	Country Environmental Profile
CO_2	Carbon Dioxide
CSP	Country Strategy Paper
CV	Climate Variability
DANIDA	Danish International Development Agency
DEL	EC Delegation
DFID	UK Department for International Development
DGIS	Directorate General for International Cooperation (Netherlands Foreign Aid Agency)
DRM	Disaster Risk Management
DRR	Disaster Risk Reduction
EC	European Commission
EIA	Environmental Impact Assessment
ENR	Environment, Natural Resources
EU	European Union
FAO	Food and Agriculture Organisation
GBS	General Budget Support
GCCA	Global Climate Change Alliance
GCM	Global Circulation Model
GHG	Greenhouse Gas
GTZ	German Aid Agency (Gesellschaft fuer Technische Zusammenarbeit)
IISD	International Institute for Sustainable Development
IPCC	Intergovernmental Panel on Climate Change
IUCN	International Union for the Conservation of Nature
LDC	Least Developed Country
MDG	Millennium Development Goal
MIP	Multi-annual Indicative Programme
MTR	Mid-Term Review
NAO	National Authorising Officer
NAPA	National Adaptation Programme of Action
NIP	National Indicative Programme
NORAD	Norwegian Agency for Development Co-operation
NWP	Nairobi Work Programme
ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
ORCHID	Opportunities and Risks of Climate Change and Disasters
PRSP	Poverty Reduction Strategy Paper
RA	Risk Assessment
REDD	Reduce Carbon Emissions from Deforestation and Forest Degradation
RIP	Regional Indicative Programme
RSP	Regional Strategy Paper
SDC	Swiss Agency for Development and Co-operation
SEA	Strategic Environmental Assessment
SEI	Stockholm Environment Institute
SIDS	Small Island Developing States
SLR	Sea Level Rise
SPSP	Sector Policy Support Programme
ToR	Terms of Reference
UNFCCC	United Nations Framework Convention on Climate Change
WMO	World Meteorological Organisation

EXECUTIVE SUMMARY

(a) The European Union (EU) has taken a leadership role in promoting international action to tackle climate change (CC). The EU, as the largest provider of Official Development Assistance (ODA), has also taken a lead role in international development efforts, as reflected in the "*European Consensus*", in ambitious ODA commitments and in the promotion of aid effectiveness and coherence. The EU has already highlighted the strong links between CC and poverty, and the urgency and magnitude of the challenge calls for a more systematic initiative to match responsibility and commitment in the fight against poverty.

(b) Methods being developed by the EC aim to assist continuing effectiveness of country cooperation portfolio under an altering climate. The Study aims to test these for some countries and conditions and to provide information on advantages and limitations. In this report, **Portfolio** refers to the Country Strategy Paper (CSP) group of programmes, projects and other support and **Initiative** refers to any single intervention: programme, project, sector budget support, general budget support or any combination.

(c) There were three aspects to the work at **Programme Level**.

- § For nine selected Country Strategy Papers (CSP) and National Indicative Programmes (NIP), Multiannual Indicative Programmes (MIP), and one Regional Strategy Paper (RSP) and Regional Indicative Programme (RIP) an evaluation was to be undertaken to indicate the percentage of the EC's portfolio that could be at risk from climate change;
- § An evaluation was to be undertaken in order to check in how far any given CSP, NIP, MIP or RIP had taken CC risks into account; and,
- § Recommendations were to be formulated on how CC resilience could best be introduced or improved in the CSP, NIP and MIP in five of the nine countries and region.

(d) At **Project Level**, the Study was to apply the provisional *Project Climate Change Risk Screening*" procedure to two selected, ongoing or planned climate-sensitive projects in each of the five countries identified previously. For projects identified as climate sensitive, to which the *Screening* had been applied, a more detailed assessment based on the provisional *Project Climate Change Risk Assessment*" procedure would then be applied.

(e) For **Validation**, a sub-set of four selected projects (two in each country, selected from the five countries identified above) were to be used during the two country visits (the Philippines and Papua New Guinea). These country-based assessments were designed to validate and improve the general assessment and to provide more comprehensive information on adaptation options and costs where possible.

(f) The task at programme level was to screen ten cases of development portfolios detailed in nine CSPs and one RSP and to identify five CSPs and RSP where a higher proportion of the EC portfolio appeared to be under greater climate risk. Through an iterative process the programme level screening approach was developed and codified in the *Screening and Assessment in Climate Change Risk Evaluation.* The evaluation was based on a set of equations that generate an approximate *Country CC Risk Factor*. This value was then combined with the assessed value of the proportion of the whole CSP funds allocated that is deemed under higher climate risk. The proportion of the whole CSP budget was analysed on worksheets that apply a series of filters such as the location of each CSP initiative in climate-exposed sectors, and Yes/No responses to four key screening questions, supported by justifying text.

(g) According to risk theory set out in IPCC (2001) climate risk is a function of the exposure, character, magnitude, and rate of CC (and variation) to which a system is exposed - multiplied by the system's vulnerability. Vulnerability is a function of a system's sensitivity, its degree of exposure, which is then divided by the system's adaptive capacity. Here this is determined from widely-available national indicators that are combined to make up a value for the *'Vulnerability Element'*. These concepts are expressed in the following risk equation (Equation 1):

Equation 1	***CLIMATE SHIFT*** Composed from World Bank data				***VULNERABILITY ELEMENT*** Composed from national proxy indices
COUNTRY RISK FACTOR =	**Overall likelihood of climate/weather events/trends**	**X**	**Overall magnitude of events/trends**	**X**	**Receptor - Sensitivity X Exposure** / **Coping Response + Adaptive Capacity**

Each country was considered to be a 'system': a single risk receptor. The country *Vulnerability Element* generated then has to include measures of *country sensitivity* and *exposure* to the Climate Shift. Country sensitivity multiplied by country exposure is then divided by a proxy measure of national adaptive capacity, to derive the Vulnerability Element.

To develop the Vulnerability Element various proxies were selected: **Sensitivity** is related to *Governance/Absence of Political Violence and Food Security/Undernourishment* **Exposure** (Geographical) is a simple measure based on the existence of specific types of geo-climatic areas present in the country - note that this neither assesses the areal coverage of the higher-risk geo-climates, nor represents their proportion versus the surface of the country **Adaptive Capacity** is represented by the *Human Development Index*. Using these proxies to represent sensitivity, exposure and adaptive capacity the following may be set out (Equation 2):

Equation 2			
Country Vulnerability to Climate Risks =	**Country area – presence of geo-climatic risk*** ** neither assesses the areal coverage of the higher-risk geo-climates, nor represents their proportion versus the surface of the country*	**X**	**Aggregate of Governance & Absence of Violence Indices + the Food Security/Undernourishment Index** / **Human Development Index**

Multiplying the *Climate Shift* with the *Country Vulnerability Factor* generates the *Country CC Risk Factor* (Equation 3).

Equation 3				
Country CC Risk Factor	**=**	**Climate Shift** (developed from World Bank Climate Portal data)	**X**	**Country Vulnerability to Climate Risks**

Of the nine CSPs and the one RSP, the following CSPs were deemed to have somewhat more CC risk than the others: Egypt, Ethiopia, India, Mali and Papua New Guinea.

(j) The CSP is the key planning instruments used by the EC to guide programmes of assistance at country level. Guided by both the objectives of the partner country and of the donor, the CSP governs the development co-operation goals, specific areas of intervention, the volume of resources to be committed and the aid delivery methods. Environmental aspects to be taken into account in the planning process are analysed in standard Country Environmental Profiles (CEPs). The role of the CEP is crucial in assessing also the level of partner CC preparedness, the current state of understanding of CC and for providing an analysis of climate variability (CV) issues. The CSPs do not identify CC issues in elaborated and consistent ways. When CC is mentioned in most cases, it is referred to as a mitigation concern, even when serious projected impacts are apparently recognised.

(k) The CEPs do explain partner adherence to international conventions such as UNFCCC, though do not usually cover projected impacts in sufficient detail reflecting the limited request for inclusion of CC issues in earlier versions of the ToRs of CEPs.

(l) A set of recommendations to strengthen CSPs was made based on understanding:

- § What constitutes CC, as against naturally occurring climate shocks and cycles
- § Level of awareness about possible CC impacts across the range of CSP stakeholders
- § Likely effects of CC on the poor
- § Quality of scientific information using downscaled CC impacts to regional and finer scales
- § Effective mechanisms for cross-sectoral coordination of adaptation actions
- § Extent to which climate risk is already, or envisaged to be, mainstreamed in development policies
- § Extent to which CC is coordinated with disaster risk reduction (DRR) strategies

(m) GBS is accompanied by policy dialogues with the beneficiary government, and so could focus on addressing cross-cutting issues relevant to adaptation to climate change. However, GBS is usually explicitly untied to specific programmes meaning that attributing use of funds to outcomes is virtually impossible. This may be an insuperable obstacle to efforts to assess what proportion of a specific donor's GBS funding is under some degree of fiduciary climate-related investment risk. During SPSP formulation and implementation, dialogues between donor and partner entities usually deal with the roles of sector stakeholders in greater depth (their capacities, awareness, partnerships) and lead to agreement on performance assessment frameworks. Therefore, when compared with GBS, sector budget support is more likely to allow for specific CC impacts assessments and design of adaptation measures.

(n) The provisional *Project Climate Change Risk Screening* procedure was to be applied to two selected ongoing or planned climate sensitive projects in each of the five countries identified as being at risk by the procedure developed in this Study (Egypt, Ethiopia, India, Mali and Papua New Guinea). The general purpose was to assess how well a simple review of the CEP, CSP and related NIP or MIP could identify potential CC risk by validating the original conclusions with information gained from the delegations direct. The provisional *Project Climate Change Risk Screening* procedure was itself evaluated during the project screening to identify any generic improvements that could be applied to the procedure ~ a revised one was proposed. Comments were made on a *ToR for the Comprehensive Assessment of the High-Risk Climate Change Project* and an "enhanced" ToR of EIA; *Terms of Reference for an Environmental Impact Assessment (Annex 8, EIH)*.

CONCLUSIONS AND RECOMMENDATIONS

Advantages, Lessons Learned and Limitations of CSP Screening Approach

(o) The *Screening and Assessment in Climate Change Risk Evaluation approach* indicates that (even accounting for assumptions and the caveats) proxies for exposure, sensitivity and adaptation capacity could be assembled to provide an overall relative (not absolute) measure of CSP portfolio under climate risk. The Approach highlights the significant elements and how they jointly constitute vulnerability. While this attempt to compare vulnerability across countries and derive a value for the exposure of CSPs to climate risk is unlikely to be fully robust statistically, the need for efforts by large international donors such as the EC to assess climate risks at the country-level is clear.

CSP portfolio screening for decision-making, or to develop CSP resilience options, is better carried out studying in-country in order to allow for a reality check on the ground. Information available remotely was only moderately sufficient to reach an evidence-based assessment.

Recommendations

- § Continue to develop the Approach provided, updating with better-fit proxies and other refinements proposed, bearing in mind that choices of proxies and their weighting means that the results are comparative between countries, and relative, not absolute.
- § Consider in-depth, in-country, portfolio screening of two or three weeks duration for large aid CSP programmes, and for programmes with large numbers of initiatives under some climate risk.
- § Consider CSP programming to continue to, and improve, use of standard European Consensus terminology for naming the sectors identified during programming.
- § Consider CSP programming to continue to, and improve, use of standard European Consensus terminology for naming the sectors identified during programming; and,
- § Improve integration of the climate risk and disaster management communities to improve the evidence bases for project formulators.

Evaluation of Climate Risk Coverage in CEPs and CSPs

(p) Review and analysis of the CC-related content of the CSPs and NIPs showed that very few contained reference to CC as an issue of serious concern. In almost all CSP cases, CC, when mentioned, is referred to as a mitigation concern, even when serious projected impacts are apparently recognised. Only the CSP/CEPs for Swaziland, Ethiopia and Guyana covered climate risk issues at any depth in relation to sector selection, and the potential of climate risk affecting development processes. The CEPs do explain partner adherence to international conventions such as UNFCCC, though do not usually cover projected impacts in sufficient detail for programming purposes.

The Study argues that a robust, dedicated section should be developed as a minimum, ensuring that improved CC content of the CEP makes a difference to CSP programming, relies on climate risk information being translated and made useful within the linked CSP. This could benefit from framing climate impacts and risk management not as 'just' an environmental issue, but as a cross-sector, cross-cutting theme with the capacity to affect the attainment of almost all the MDGs.

Recommendation

§ Greater emphasis on CC-related content in CEPs in accordance with the Study proposed Contents.

Synergies with GHG Mitigation Potentials

(q) Identifying the potential for substantial synergies between CC mitigation (reductions in GHG emissions) and adaptation to CV requires specialist research effort. This first has to work out the areas of overlap between developing-country sectors that have mitigation potential with those sectors that are most vulnerable to CC impacts. In most cases, this first assessment would not select for sectors with the highest volumes of GHG emissions, such as transport, industry and energy production.

The sectors that are highlighted as overlapping would be those where unsustainable use of environmental resources, usually within rural development, produces high volumes of GHG in activities which generate high levels of social and economic vulnerability. As reported in UNFCCC National Communications, GHG emissions from agriculture and livestock ranching may be significant. Options do exist to shift agricultural systems towards conservation practices such as cover cropping and agro-forestry that emit lower volumes of GHGs, and these could make substantial contributions to diversified stable livelihoods.

Recommendation

§ Sector assessments, as proposed for inclusion in CEPs, should include low carbon development and review of cross-overs between mitigation and adaptation, as themes to be reported on both during exercises such as SEA and during preparation of initiatives at varying stages.

Climate Change Resilience-Building in the CSPs at Risk

(r) Upcoming Mid-Term Reviews of CSPs would be good options to further develop climate risk into CSP programming otherwise integration will depend on the timing of new formulation rounds of country and regional strategy papers. Building resilience in programming relies on several other factors in the human resources dimension, such as training and boosting the role of champions, as well as intra-EU collaboration. Programming may consider stand-alone interventions for example those that improve the handling of CC information, or similar direct risk management initiatives that directly confront climate impacts.

Information about the state of country understanding of CC and about maturity in adaptation policy/practice of partner governments and country stakeholders must be gathered through interviewing a wide range of informants and extensive document review. A key focus will be to gather evidence about useful entry points in each sector where aid and partner resources can be used for greatest benefit.

Recommendations

§ Until a new CEP is developed, the Mid Term Review is recommended to be the main option to introduce more detailed treatment of CC in the CSP.

§ Recommend that the inclusion of climate risk management in CEPs and CSPs, should take into account regional UN and EC Action Plans for DRM in disaster-prone regions, requiring scaling-up and integration of existing (EU/other donor) DRM programmes, with complementary climate adaptation initiatives supported by the EC or other donors.

- § Recommend that EC Delegation staff Organisations should identify the networks, organisations, and individuals preparing UNFCCC National Communications and encourage participation in EC country programming.

Integration of Climate-Risk Management in General- and Sector- Budget Support

(s) For GBS programmes, climate risk integration opportunities should be assessed in the CSP against the PRSP and national DRM and climate risk mitigation plans. The Study suggests that GBS could best tackle CC issues if these are explicitly factored in the country's PRSPs, just as was the case with DRM. This would allow policy dialogues around GBS to judge how significant those vulnerabilities are across the partner's systems and sectors, and propose designs of GBS consistent with recipient country policies.

Of the aid delivery modalities used by the EC, SBS offers the required balance between scale of delivery (capable of handling large volumes of funding) and traceability of EC investments to ensure these are not exposed to unacceptable levels of fiduciary risk. SPSPs are the principal route that could enable the transfer (and the effective uptake by partners to deliver required outcomes) of the increasingly-higher volumes of climate-focussed development aid that will be needed, as CC impacts begin to kick-in, with successively graver effects on decadal time scales.

Recommendations

- § Recommend the design and delivery of SBS programmes that specify what is expected to be achieve and by when, ensuring that indicators measure performance in terms of actual 'disaster and climate risk management outcomes'.
- § Recommend that, in an integrated focus, policy dialogue and SEAs deliberately engage in wider consultation, to describe the state of the sectors at-risk and of interest, to identify and evaluate (even using ranking) the major climate/disaster-related research and development priorities facing those potential priority focal sectors.

- § For GBS programmes, while progress is assessed against the existing PRSP, partner governments should account for national objectives alongside international adaptation/mitigation commitments. Recommend that efforts are made to encourage partner government, with joint –donor support, to build significant climate and disaster risk management elements into PRSPs.

Project Climate Change Risk Screening

(t) The evaluation of the *Project Climate Change Risk Screening* procedure proposed to be integrated in the toolbox for environmental and CC integration in development cooperation has been positive. While considerable modifications were made, the country meetings at Delegations focussing on its validation confirmed that the procedure could be used at the end of identification, and then to guide questions to ask during formulation. Detailed guidance for the *Project Climate Change Risk Screening* needs to be provided alongside training to make sure that uptake is made as easy as possible.

(u) The inconsistent use of a common sector terminology makes it difficult to draw overall conclusions about which sectoral initiatives could generally be considered at risk. The Summary tentatively shows a predominance of vulnerable rural development and transport projects where impacts are potentially direct and significant. Natural resource-based initiatives such as forestry and water are deemed at-risk because of direct climate impacts on rainfall or ecosystem health.

Recommendation

- § Recommend continued development of the *Project Climate Change Risk Screening* procedure through a further piloting exercise.

Project Climate Change Risk Assessment

(v) Given the current state of knowledge, it is difficult to clearly define the boundaries of, and methodologies for, the in-depth climate risk assessment of projects. The uncertainty surrounding CC projections, in particular at the local level, is such that emphasis is often given to the use of historical data more than climate projections. This is reasonable given that data scarcity is frequently a major limitation for in-depth risk assessments. This however implies that the rationale and designs of adaptation options would be overly-based on vulnerability considerations, rather than accounting for scenarios of future impacts from climate stimuli. Also, there are concerns how in-depth assessments could require significant capacities from consultant teams involved in project formulation, and the burden that this may impose on EC Delegation task managers who are required to formulate terms of reference, assess the outputs of the assessment, and steer the formulation process.

(w) The option of increasing the coverage of climate risk issues within the ToR for EIAs was examined, to assess whether the procedure of 'enhanced EIA' could take the place the in-depth or comprehensive assessment of high-risk projects. Given the conceptual differences between environmental impacts and climate change impacts, this option was not recommended.

The *Terms of Reference for a Comprehensive Assessment of High-Risk Climate Change Project* was provided towards the end of the Study and was briefly commented on. This comprehensive assessment is scientifically-challenging and requires some innovation. This Study finds that the role of the in-depth comprehensive assessment is intrinsic to the system for climate risk management that the EC is in the process of establishing.

Recommendations

- § It is proposed that the ToR for *Comprehensive Assessment of High-Climate Risk Projects* should be refined and pilot tested.
- § Recommend that once the *Project Climate Change Risk Screening* procedure is rolled out into use by Delegations, the *Comprehensive Assessment of High-Climate Risk Projects* could then be piloted and improved iteratively.

1.0 SCOPE AND RATIONALE

1.1 Background

1. The Intergovernmental Panel on Climate Change (IPCC) has provided the international community with three important conclusions: firstly, climate change (CC) is happening; secondly, the recent acceleration in CC is the result of human activity; and thirdly, most regions in the world, and especially those in the developing world, will be increasingly affected by CC, usually beginning with increasingly variable and anomalous weather patterns that are termed 'climate variability' (CV).

2. The European Union (EU) has taken a leadership role in promoting international action to tackle CC. The EU, as the largest provider of Official Development Assistance (ODA), has a leading role in international development efforts, as reflected in the "*European Consensus*", and in ambitious ODA commitments requiring greater aid effectiveness and coherence. Although the EU has highlighted the strong links between CC and poverty in 2003, the urgency and magnitude of the challenge calls for systematic initiatives that match Europe's responsibility and commitment in the fight against poverty.

3. Developing countries are expected to suffer the most from negative impacts of CC due to the economic importance of climate-sensitive sectors (such as, agriculture and fisheries) and to their limited capacity (human, institutional, and financial) to respond to the direct and indirect effects of climate change.

4. Projections of the effects of CC show that the Least Developed Countries (LDCs) and Small Island Developing States (SIDS) will be hit earliest and hardest. Moreover, these countries have the fewest resources to prepare for these alterations and to adapt their way of life. CC is therefore likely to delay further the achievement of the Millennium Development Goals (MDGs) in these and many other developing countries. Under the umbrella of the UN Framework Convention on Climate Change (UNFCCC), there is a requirement for LDCs to prepare National Adaptation Programmes of Action (NAPAs) and to date 41 LDCs have prepared these, though financing these is by no means underway.

5. Several methods have been developed by the European Commission (EC) with the aim of contributing to the continuing effectiveness of the EC development co-operation portfolio in the context of CC challenges. These methods need to be tested for a range of countries and conditions.

1.2 Objectives

Global Objective

6. The Global Objective was to contribute to the implementation of the EC's external policy on CC through a better integration of CC aspects in EC's development portfolio. The ToR tasks were scaled down *e.g.* the number of projects to be screened was reduced (due to availability) and the requirement to undertake full climate risk assessment during country visits was modified.

Specific Objective

7. The Specific Objective is (a) to estimate the part of the EC's aid portfolio which is potentially at risk due to CC and (b) to develop further, and test, methods and approaches responding to the challenges of CC on development co-operation to that ensure continuing effectiveness.

8. Specifically this includes developing and testing an approach to screen EC interventions for their likely vulnerability to CC impacts, and their potential direct and indirect consequences on the capacity to adapt to CC or climate-change mitigation potential of a sector/country.

9. The analysis will also provide recommendations to effectively respond to CC challenges in development co-operation.

1.3 Screening, Assessment and Validation

10. An indicative work plan was prepared (*Administrative Appendix A 1*) which indicates the overall work flow for screening, assessment and validation. To avoid confusion, since many terms are used interchangeably depending on specific context, the following terms have the meanings as used in this report: **Portfolio** refers to the Country Strategy Paper collection of programmes and support and **Initiative** refers to any one intervention within a country: programme, project, sector budget support, general budget support or any combination.

Programme Level (Screening)

11. There are several aspects to the work at Programme Level.

    (a) For nine selected Country Strategy Papers (CSP) and National Indicative Programmes (NIP), Multiannual Indicative Programmes (MIP), and one Regional Strategy Paper (RSP) and Regional Indicative Programme (RIP) an evaluation was to be undertaken to indicate the percentage of the EC's portfolio that could be at risk from climate change;

    (b) An evaluation is to be undertaken in order to check in how far the particular CSP, NIP, MIP or RIP have taken CC risks into account.

    (c) Recommendations are to be formulated on how CC resilience may best be introduced or improved in the CSP, NIP and MIP in five of the ten countries whilst recognising that these recommendations should ensure that the CC integration measures proposed are consistent with the expected CC effects for the specific country.

Project Level (Screening and Assessment)

12. The Study was to apply the provisional "*Project Climate Change Risk Screening*" procedure. This procedure was known originally as Annex 1 and later as Annex 7 (referring to its nominal position in the revised Environmental Integration Handbook [EIH]) and was to be applied to two selected, ongoing or planned climate-sensitive projects in each of the five countries identified previously.

13. For those projects identified as climate sensitive, to which the *Screening* has been applied, a more detailed assessment based on the provisional *"Project Climate Change Risk Assessment*" procedure would then be applied. This procedure was known as Annex 2 and was later withdrawn because it was believed that there was not enough consolidated knowledge to include, in the EIH, a prescription of what methodologies and methods should be used for such a detailed assessment. Whilst the overall objective and expected results of the assessment as detailed in the Annex 2 procedure (Sections 1 and 2) remained valid there was no single tool or methodology that could be suggested. There was an intention to test various tools (including the World Bank *Adapt* portal) to provide more information so that commentary could be made on possible adaptation options and their costs.

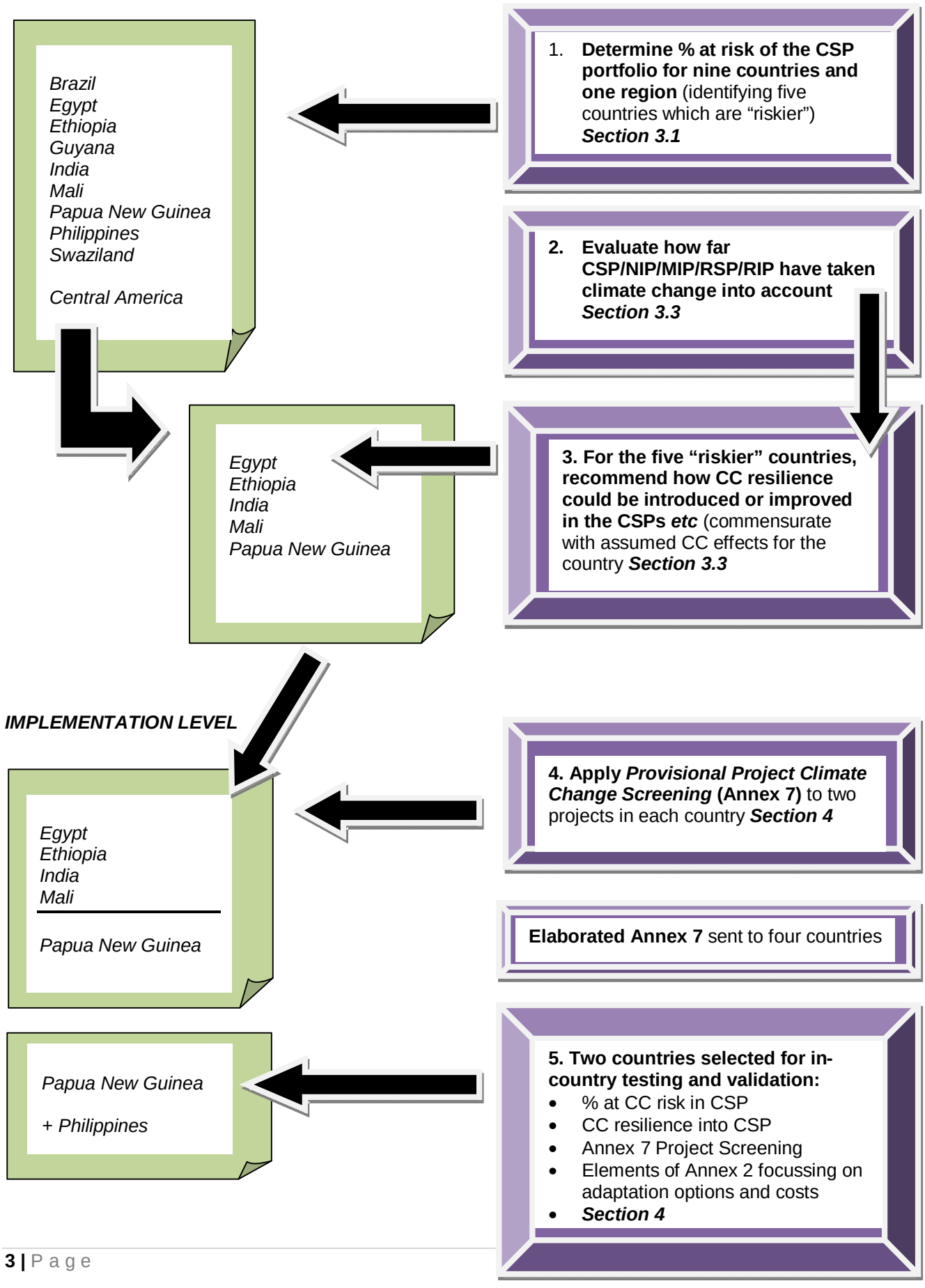
Country Visits (Validation)

14. For a sub-set of four selected projects (two in each country, selected from the five countries identified in 10 above) two country visits were undertaken; to the Philippines and to Papua New Guinea. These country-based detailed assessments were designed to validate and improve the general assessment and to provide more comprehensive information on adaptation options and costs where possible.

15. The overall Study was to provide comprehensive information on the advantages and limitations of the procedures, approaches and methods used in order to learn lessons for wider application. The work has provided some materials suitable for case studies that illustrate the application of the methods and approaches that may be used to further promote the concepts of CC screening for risk management.

16. Figure 1 indicates the work flow process. This report is structured to align with the process.

Figure 1 Assignment Process



2.0 APPROACH

2.1 General Approach

17. The steps taken to accomplish this assignment were as follows:

    - Receipt and review of EC country documentation (CEP/CSP/NIP *etc*);
    - Review of existing methods and techniques (at Programme and Project level);
    - Internal stakeholder liaison (within EC);
    - External liaison (donors, development research organisations, national experts *etc*);
    - Programme level (review of existing approaches and methods, preparation, testing and re-formulation – **screening** of country portfolios);
    - Determination of assumptions, uncertainties and constraints affecting the CSP portfolio screening;
    - Project level (review of existing approaches and methods, preparation, testing and re-formulation – **screening and assessment**);
    - Assumptions, uncertainties and constraints (issues affecting confidence in data and procedures);
    - Selection of country visits and projects;
    - Application of SEA, EIA and RA methodologies, where appropriate;
    - Testing and re-formulation of methods; and,
    - Reporting (draft, final, presentation).

18. The basic country documents for the range of countries and for the region of interest were provided comprising: Country Environmental Profile, Country Strategy Paper, Regional Strategy Paper, National Indicative Programme, Multi-annual Indicative Programme and Regional Indicative Programme.

19. In parallel, a literature review was undertaken to obtain an overview of the current state of knowledge and practice concerning CC risk screening. This involved document and web search, and interaction with the CC practitioners active in development co-operation.

20. A Programme Level screening Approach was developed (Section 4).

21. Two methods were provided which were required to be tested at Project Level for Screening of risk and then Assessment (Section 5). During this process, the application of strategic environmental assessment (at Programme Level) and of 'enhanced' environmental impact assessment [EIA] (at Project Level) was explored. A ToR for a *Comprehensive Assessment of High Risk Project* was provided for comment towards the end of the Study, as was the draft ToR for (a CC-enhanced) EIA.

22. As the Programme Level approach was elaborated, the suite of potential countries to be used as a test bed for the Project Level method validation was discussed and two countries were selected.

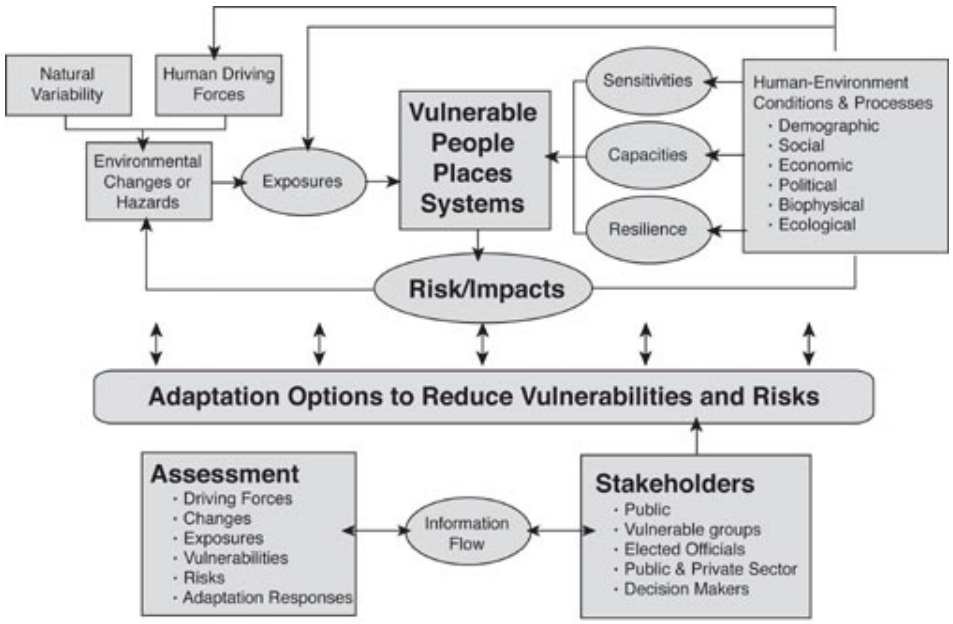
23. During the two country visits the Project Level methodology was to be tested and the methods commented upon.

2.2 Overview of Some Current Approaches for Climate Change Risk Screening

24. A large literature explores diverse issues concerning development aid and climate change risk, using varied methods to develop understandings, relevant policies and generate good practice. This information base has been partly explored to develop the approaches and analytical criteria employed in this Study (Technical Appendix 4 T. 4 *Climate Change Risk Information Sources*).

25. Figure 2 shows the relationships between key aspects of dealing with development aid within a CC context.

Figure 2 from European Environment Agency 2008



26. Climate risk screening is just one element within wider efforts to undertake CC mainstreaming. This is understood as a process of progressive integration of policies and measures to embed CC into the project and programme cycles both of donor agencies and their partner governments, particularly within budget support, sectoral planning and management. A key purpose is to make more effective use of resources, compared with the case when climate risk policies and actions were separated from sectoral policies. Integration is the term used when specific adaptation measures are added to development plans or strategies.

27. The purpose of mainstreaming is to ensure viable and sustainable development investments. A central concern is addressing climate vulnerability, a function of exposure, sensitivity and adaptive capacity, seen as "...*the degree to which a system is susceptible to, or unable to cope with, adverse effects of CC, including climate variability and extremes*" (IPCC 2007). The term social vulnerability assesses the environmental and social drivers of vulnerability to environmental risks (Adger *et al*. 2003). *Ad hoc* responses such as short-term responses, uncoordinated processes, isolated projects, *etc*. are not a solution, given that developing countries need to focus on increasing capacity and resilience over the longer term. Adaptation capacity is understood as the ability of people, organisations and society to successfully manage their climate concerns, and covers the experience, knowledge and technical skills of individuals and their organisations (OECD 2006).

28. Due to the uncertainties that make it difficult to project in any detail the extent and future impacts of CC, the 'vulnerability approach' assesses the nature of CC impacts based on detection of the factors underlying current vulnerabilities, and by demonstrating how adaptation actions strengthen the adaptive capacity of social and ecological systems.

29. Technological adaptation measures need to recognise social and environmental processes, address non-climate factors contributing to vulnerability to CC and suit to local conditions (Klein 2007). Elements needed include activation of the political will of key local "enablers" and the development of practical guidance for local development activities.

30. This Study assumes that the national level is the appropriate scale for information about the risk exposure of the EU's aid portfolio. There is also interest in region-wide approaches, despite the obvious difficulty that many data are only assessed and available nationally. This Study was conducted on a sample of nine countries and one region and based on the EC CSPs, NIPs, and MIPs for individual countries, and the equivalent for the region.

31. There is a natural concern about generalised multi-faceted risks that result in a wide range of impacts. A range of hazards are likely to impact activities in different sectors according to sensitivities and exposure levels. This has been examined in detail in the EC's Climate Change Sector Guidance, that set out a wide range of potential risks and impacts associated with diverse project and programme actions which, in turn, are linked with altered climate variables and weather events.

32. It is necessary to estimate acceptable degree of risks for risk management practices to be effective as responses. Impacts are almost always mediated by local conditions. Any approach should be grounded in literature review and demonstrate a full, integrated and intuitive understanding of human–environment interactions. It is vital to grasp the sub-national spatial and social differentiation of vulnerability. Due to the local nature of impacts and responses, today's risk management should involve stakeholders in the definition of tolerable risk levels. Due to time and scope limitations, this was not possible in this Study.

33. In the short term, local and traditional knowledge should be a key input to CC resilience strategies and should be incorporated into the design and implementation of programmes and projects. In the longer term, better functional government should be able to underpin development activity, part of which has to be done, currently through finessing some parts of the programmes and projects.

34. Although the literature is peppered with development researchers' papers that explore a multitude of proxy vulnerability indicators, any generic assessment is inevitably less sufficient compared to a practical understanding of local vulnerability and adaptive capacity. Various studies have indicated some key indicators of vulnerability:

    - population with access to sanitation
    - maternal mortality
    - literacy rates (over 15 years, 15–24-year olds, and female to male)
    - calorific intake
    - voice, accountability, civil liberties and political rights
    - government effectiveness
    - life expectancy at birth

35. These indicators may be divided into three categories: governance, health, and education. This concurs with field outcomes. If there is sound central and local government, a sound health sector and a sound education sector then resilience should arise organically without the need for bolt-on adaptation plans.

36. Klein (2007) assessed mainstreaming and portfolio-screening efforts by six agencies: the World Bank, the German Technical Co-operation Agency (GTZ) the Organisation for Economic Co-operation and Development (OECD) Norwegian Agency for Development Co-operation (NORAD) the Swiss Agency for Development and Co-operation (SDC) and the UK Department for International Development (DFID).

37. The review compared methods used for the screenings and analysed their abilities to meet mainstreaming challenges and concluded, not unexpectedly, that tackling the impacts of CC on development investments is at an early stage:

    - A significant share of development investments were at-risk of CC effects;
    - Climate risks were rarely mentioned in the project documents, even in areas with high current exposure;
    - Attention to CC was found to be primarily reactive with limited policy and strategy;
    - CC was mainly addressed as a mitigation issue and understood just as an environmental concern;
    - There was limited technical and political consensus about the nature of 'climate proofing';
    - The focus of adaptation should move beyond improving the technocratic ability to adapt to current weather extremes and CV by aligning risk management within the development process; by focusing on social change under all sources of significant risk; establishing devolved systems of social risk management and civil contingencies planning; and building up core livelihoods' resilience, by focusing on entire systems, and not just on those parts that are sensitive to climate stimuli;
    - A multitude of local coping strategies exist that people use to manage their natural resources and secure their livelihoods in a variable climate; and,
    - A majority of agency staff would like to have more information and support to integrate adaptation to CC in their work.

38. EU donor organisations have developed several climate-proofing methodologies and instruments. The

Dutch Directorate General of Development Cooperation (DGIS) tested "*Quick Scans*"of projects in which experts assessed the climate risks via a short, project visit. DFID's piloted portfolio screening has used a process-based methodology called ORCHID (*Opportunities and Risks of Climate Change and Disasters*; Tanner *et al*, 2007). This has attempted to manage both specific risks and to enhance opportunities for reducing vulnerability. The approach combines attention to current disasters with tackling the impacts of more gradual trends in climate change.

39. Computer-based tools, such as *CRISTAL* which structures the assessment of CC risks for rural livelihoods, have been developed through wide cooperation.

40. The World Bank *ADAPT* tool provides users with a risk assessment based on detailed information entered online. Many of these instruments and tools are in pilot or early stages of development. GTZ developed with Potsdam Institute the "*Climate Check*" approach, involving a project *Climate Proofing* tool which tackles mitigation alongside adaptation with tools for "*Emission Saving*". Some of these methods are described briefly, and compared in *Technical Appendix 4 T. 4 Climate Change Risk Information Sources*.

41. Lessons emerging from these recent portfolio screenings are becoming clear:

    - Screening results reinforce the ongoing contribution that many programmes already make to vulnerability reduction;
    - A continuum of adaptation actions has been noted, ranging from those addressing the drivers of vulnerability (i.e. managing drought) to explicit confrontation of CC impacts;
    - Screenings have revealed the need for improved vulnerability assessment at the local level that evaluates key resources and assets potentially affected by CC, which usefully can draw on the Sustainable Livelihoods Framework;
    - Adaptation to CC is increasingly recognised as involving not only the implementation of technological measures but also includes consideration of non-technical and non-climate issues, such as ensuring water rights to groups exposed to water scarcity during drought;
    - Donor awareness of CC is critical in policy dialogue with beneficiary governments;
    - Vulnerability to CC may be reduced more effectively by addressing non-climate factors (e.g. effective regional and local government) than by implementing climate-resilient projects *per se;*
    - All projects should be assessed for mal-adaptation; and,
    - The most climate-sensitive sectors, reflecting UNFCCC analysis of the sectors covered by NAPA projects worldwide are: food security, coastal zones and marine ecosystems, disaster management, education/capacity building, energy, health, infrastructure, insurances, terrestrial ecosystems, tourism and water resources.

42. A mainstreamed adaptation strategy with measures that address the underlying factors of vulnerability to CC, particularly on a local scale targeting local needs, are often considered to be more successful than large-scale policy measures that are not capable of rapid implementation. However, contradicting this are the perspectives about adaptation that highlight issues beyond the medium term. These, more serious climate impacts, are expected to kick in and continue to generate negative synergies, with significant increases in weather-related crises occurring at or beyond the ten-year time scale. Indeed, many development practitioners with even modest, country experience would argue that focussing on programme and project level adaptation actions rather than the root causes of vulnerability and opportunities for resilience is akin to applying a Band-Aid to a broken arm. Tackling the root causes of vulnerability is preferred to the short term action of adapting programmes and projects. Certainly large-scale, swiftly-delivered, short-term interventions are needed to address immediate adaptation requirements, but it should be recognised that this merely "proofs" the intervention. It does little to reduce the vulnerability of whole systems of human communities within their environment, or to improve resilience *per se. S*ubsequent programmes and projects may simply have to be "proofed" again.

43. EU bilateral donors) are increasingly attempting joint donor working as a vital strategic element that helps tie donor efforts closely with national and regional capacity building. For example, networks of aid agencies in a given country may collaborate in preparing a joint national assessment with the partner government. In the case of Bangladesh, considerable cross-donor work between DANIDA, DFID and others has led to the government setting up a multi-donor work programme and trust fund. However, there is still significant overlapping activity between donors, and CC risk management activity is no different.

44. Work with regional networks offers higher level entry points beyond national levels, for example the IDRC-supported Asia Disaster Preparedness Centre and West African Desertification Combat Committee and Central America's Environment and Development Commission (CCAD). These may be linked to Regional Climate Outlook Forums promoted by WMO that manage shorter-scale forecasts. Collation of vulnerability and adaptation tools and methods is a focus area under the Nairobi Work Programme under the United Nations Framework Convention on Climate Change. However, even though awareness of the impact of CC on development is increasing, firm examples of joined-up donor/partner mainstreaming are limited, and largely found at project level rather than as a strategic programming approach (OECD 2008).

45. The integration of adaptation in development cooperation has received high-level endorsement that provide a strong imperative to mainstream adaptation into ODA:

    § National Adaptation Programmes of Action (for LDCs)
    § European Commission's Action Plan on Climate Change (2004)
    § Independent Commission for Africa and Gleneagles Summit in 2005
    § OECD Declaration on Integrating CC Adaptation into Development Cooperation (2006)
    § EC's Global Climate Change Alliance to assist developing country adaptation integration (2007)

46. When considering risk assessment and management an early question is whether or not classical risk assessment techniques may be effectively applied in the context of climate change. There is little real point in developing a specific risk approach if an existing process is already available, already understood and has a track record.

47. Ongoing debates between researchers and practitioners in different disciplines employ varied definitions of risk, vulnerability and adaptation, causing potential confusion. Clear terminology is important for identifying causal relationships between climate-change risks and human vulnerability, and for designing risk management interventions. Refer to the Glossary for a full list and for definitions of terms used.

48. This Study attempts a coherent approach and argues for a unifying terminology to climate and disaster risk management across disciplines. While it may be loosely possible to speak of "vulnerable countries", the concept of "vulnerable geographical regions" or "vulnerable sectors" is more robust. There is clear evidence in socially-oriented development research literature that demonstrates that climate risks and negative impacts fall disproportionately upon specific "vulnerable groups".

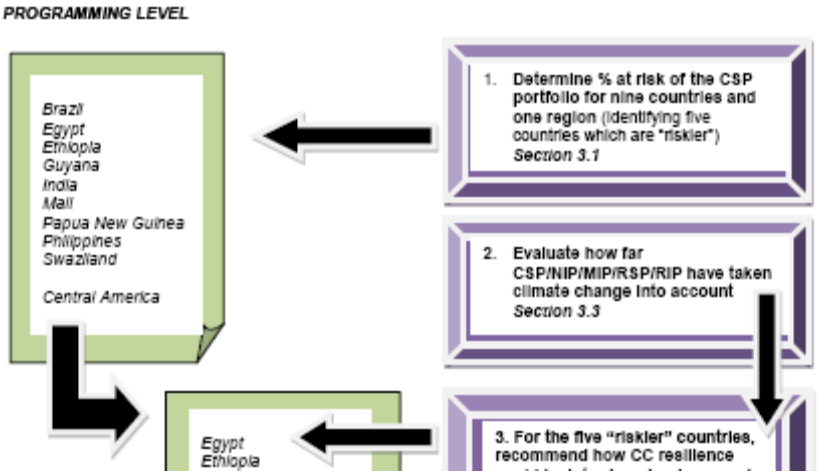
49. The screening of country portfolios for CC-related risks is becoming a key component in delivery of development co-operation that imposes challenges and obligations on stakeholders; donors, partner governments, civil society agents and targeted beneficiaries. Some of these challenges are:

    § Addressing CC in technical missions and relevant consultation meetings
    § Identification of intervention-design modifications required to address climate change
    § Assessment of adaptation actions that could be included as part of risk management
    § Assessment of mitigation options that could be pursued in development plans and strategies
    § Supporting relevant capacity development to cope with CC at programme/project levels
    § Addressing CC impacts in EIAs and SEAs and related actions

50. Issues relevant to portfolio screening are :

    § Country vulnerability and risks from CC and extreme weather
    § Sources of CC data for the country of interest and prevailing consensus on future CC
    § Specific issues and country studies concerning country, region and sector vulnerability drivers and the state of adaptation capacities and response systems
    § National adaptation planning efforts- if the country has or is in the process of preparing a National Climate Change Adaptation Programme (NAPA) or (if not an LDC) an equivalent and institutional framework , as seen for example if CC concerns have been included in the PRSP
    § Technical and scientific capacities in the country of interest
    § Awareness of CC issues and disaster risk in civil society
    § Potential entry points for adaptation and DRR in the donor's intervention portfolio

3.0 PROGRAMME LEVEL CLIMATE RISK SCREENING



3.1 CSP Screening and Assessment in Climate Change Risk Evaluation

51. The task at programme level was to screen ten cases of development portfolios detailed in nine CSPs and one RSP. Selection was to be made of five CSPs and RSP where a higher proportion of the EC portfolio appears to be under greater climate risk. Through an iterative process the following elements of the Programme Level Screening Method were indentified, developed and codified in CSP *Screening and Assessment in Climate Change Risk Evaluation.*

52. Classical risk assessment is systematised as a series of steps, as follows:

    1) Define the country assets that could be affected or may need to be assured such as productive land, protected area, river property, way of life, vulnerable group *etc*
    2) Identify hazards to those assets - climate-change impacts - sea level rise, weather patterns shifts
    3) Estimate the likely Consequences (C) of that threat on land, property, way of life *etc*
    4) Estimate the Probability (P) that the hazard will occur - based on existing best science
    5) Calculate the Risk (R) ~ P x C
    6) Estimate the Vulnerability (V)
    7) Calculate the Exposure (E) ~ R x V
    8) Apply (adaptation) measures (to reduce vulnerability which, in turn reduces the Exposure)
    9) Establishment of Revised Exposure (improved resilience)

53. While still valid, such orthodox risk assessment practice places a systematic rigour on levels of risk, based on quantified probability and the acceptable degree of risk, and requires appropriate stakeholder involvement in the definition of acceptable levels of risk. Although uncertainty is embedded in this process at all steps, CC risk assessment has yet to reach an equivalent maturity.

54. For the sample of nine countries and one region under assessment, a set of indicators has been proposed that are utilised internationally. The indicators are applied on a country scale since most important political decisions are made on a national level, and data are mostly available at national scale. The assumption is that indices representing biophysical, social, and technological vulnerability can be aggregated using weightings with scores "averaged" through their summation into an overall country-level index of vulnerability.

55. These include the UNDP's Human Development Index, measures of geo-climatic exposure and other indicators. The idea is that these, jointly, should provide comparable and transparent information on the relevant aspects of development that capture genuine environmental and social features of resilience.

56. The Climate Shift is calculated using the World Bank Climate Change Portal (http://sdwebx.worldbank.org/climateportal). This provides projected climate data based on outputs from a high resolution (20 x 20 km) Global Circulation Model (GCM) from the Japanese Meteorological Service (MRI). Projections for specific geographical locations (the latitude and longitude that is determined by the user's 'click' on the map) are offered for two time periods; (i) change over 2091 to 2100 vs. the "normal climate" period 1981- 1990; and (ii) change over 2030 to 2049 compared with 1980

– 1999. The site also provides information on model agreements within IPCC GCM models, at a lower resolution. Country Average Values are also provided for the change from 2030 to 2049 compared with 1980 – 1999.

57. Using the latter data, a CC index (*Climate Shift*) has been generated that is intended to reflect overall trends and degree of change of key variables, and to correlate with the largely unknowable degree of hazard severity and frequency. As the World Bank data is the only source that covers all EC's countries of interest in a reliably uniform fashion, the method in this Study uses the available Country Average Values from projections for the 2031 - 2050 time horizon, as if that applies to likely changes within shorter time spans (compatible with the time horizons of programmes and projects in the current and next CSPs). This naturally generates an analysis that is somewhat generalised.

58. The basis of the approach in the CSP *Screening and Assessment in Climate Change Risk Evaluation* is a set of equations that allows representation of the elements which contribute to CC risk. The aim is to assess the relative degree both of national vulnerability for this sample of ten countries, which also accounts for projections of altering climate.

59. The role and contribution of this Portfolio Risk Screening approach to EC programming, as a reliable approach, is affected by several constraints and uncertainties which must condition the results of this Study:

- **Scale of concern.** CSP assessment requires statements on the national scale. This means that each country has been considered to be one 'system', as if it were a single risk receptor. However, of course, disasters and climate trends are LOCAL and human communities that are affected respond in multiple ways to multiple climate effects, rather than according to a defined national vulnerability. So it is likely that "Country Vulnerability" only partly represents the objective degree of country sensitivity and exposure to the 'Climate Shift'. This makes the values given as Results only of value in comparison to one another, rather than an objective statement of a real country attribute;

- **Specific selected proxies.** This method is a broad-brush approach and uses selected indices. Other proxies could be selected for sensitivity, exposure and capacity AND other methods and weightings chosen to derive projected CC. The contextual nature of risk is hardly addressed here, given the top-down approach used;

- **All-in-one 'climate shift'.** The Climate Shift calculation deals with a mixture of altered magnitudes/likelihoods of discrete, extreme meteorological variables. It is assumed that the five variables shown may be composited into one score that represents (i) combined extreme events (weather disasters) in addition to (ii) longer-term issues (such as trends in predictability of seasonal events, altered event's intensity, impacts - shifted agro-ecological zones / 'climate envelopes'). However, one number that so crudely characterises hazards, risks and projected impacts is unlikely to objective situations meaningfully. No single number is able to meaningfully represent multiple hazards, as well as express climate trends, and intangibles such as greater variability;

- **Hazy climate data.** Generalised World Bank figures are for the relatively-distant time-period of 2031 to 2050. For that time-slice, World Bank provides data on projected changes to climate variables for the specific "clicked-on" location. For a country as a whole, the Country Average Values for that same time-slice were used, but the averaging process across diverse locations injects uncertainty, as this rolls together in one value possible great changes in opposite directions in specific locations Of course, significant general uncertainties affect climate observations and projections in data-poor developing countries, particularly in the tropics where projections of precipitation change may often differ greatly between models. Strictly speaking, therefore within the lifetime of CSPs, increased CV, and not definitive CC, is likely the main issue of concern for current EC-supported programmes and projects;

- **Poor sector filtering.** It has been necessary to apply a simple sector filter, ignoring the fact that within one overall sector, many sub-sectors could be differently sensitive to, and respond to, CC and variability. For instance, in the example in this Study, India has a very high at-risk % because of a notional at-risk sector (Health). However, how much is actually at-risk depends on many variables. Just applying the concept of 'the sector' does not represent the reality of most projects, which may have components and activities that are differently exposed and sensitive to hazards. A finer scale is needed to represent better within-sector and within-project differences, just as when screening projects for environmental impacts;

- **Contested terms and definitions** for the elements making up vulnerability, for example between the Disaster Risk Reduction (DRR) and Climate Change (CC) adaptation research and development communities, may inject confusion when this information is interpreted

- **No single figure for the risk level of EC aid.** For these reasons, it is not possible to produce an overall average figure that stands for the collective risk level of the EC's CSP portfolios in this sample. To do so would be inappropriate and meaningless.

60. The caveats listed mean that, as a portfolio assessment exercise, this Study may not be fully verifiable. In particular, it should not be used for decision-making, for example to distribute scarce funds across competing regions and contexts. Even so, the approach piloted here does employ a coherent methodology and conceptual framework, uses a transparent process that combines expert judgment with indicator-based data, and avoids becoming reductionist by not being entirely based on single-number indices, though the multiple criteria approach does not necessarily lead to greater accuracy. The approach here has generated a simple, spreadsheet-based technique which offers a view on issues and considerations that are critical to development decisions in the face of uncertainty.

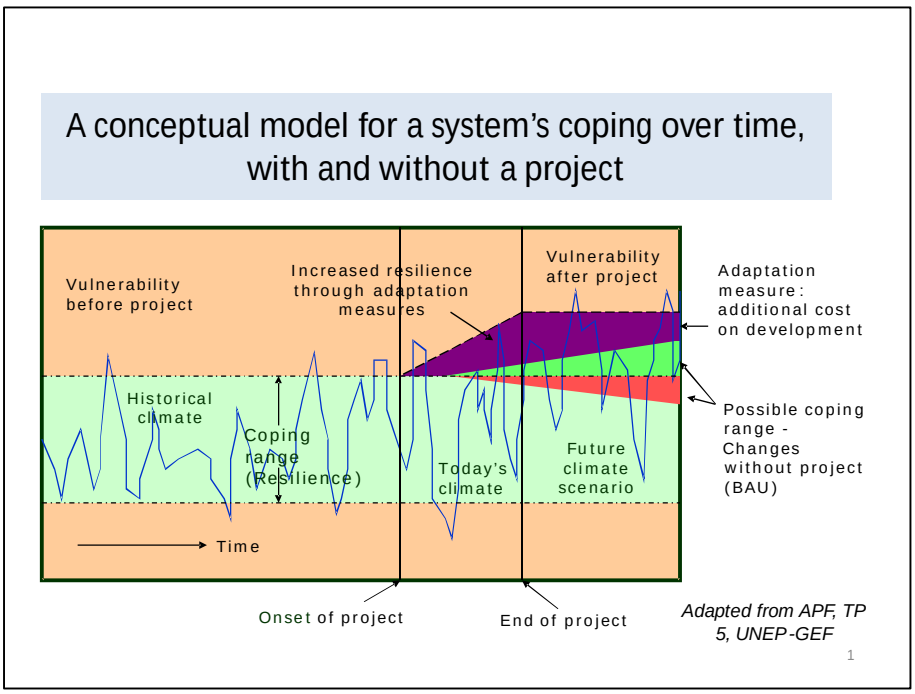
61. The Study has developed a two-dimension processing method for evaluating the EC portfolio, in combination with assessment of questions used in the Environment Integration Handbook's Annex 7 '*Project Climate Change Risk Screening Procedure*'. Given the limitations of an exploratory 'desk study', the calculations and assumptions are open to review and ongoing improvement.

62. The dimensions are:

    D 1: Country Vulnerability and Risk Screening
    D 2: Proportion of CSP Portfolio Exposed to Climate Risk

63. Figure 3 sets out some of the relationships implicitly covered in this approach.

Figure 3 A Conceptual Model for Coping with Climate Change



64. According to risk theory set out in IPCC (2001) climate risk is a function of the exposure, character, magnitude, and rate of CC (and variation) to which a system is exposed - multiplied by the system's vulnerability. Vulnerability is a function of a system's sensitivity, its degree of exposure, which is then divided by the system's adaptive capacity. Here this is determined from widely-available national indicators that are combined to make up a value for the '*Vulnerability Element*'.

    These concepts are expressed in the following risk equation (Equation 1):

Equation 1

COUNTRY RISK FACTOR =	***CLIMATE SHIFT*** Composed from World Bank data				***VULNERABILITY ELEMENT*** Composed from national proxy indices
	Overall likelihood of climate/weather events/trends	**X**	**Overall magnitude of events/trends**	**X**	**Receptor - Sensitivity X Exposure** / **Coping Response + Adaptive Capacity**

DIMENSION 1:

65. To develop the Vulnerability Element (Equation 2) various proxies may be selected:

- **Sensitivity** is related to *Governance/Absence of Political Violence and Food Security/Undernourishment*
- **Exposure** (Geographical) is a simple measure based on the existence of specific types of geo-climatic areas present in the country - *note that this neither assesses the areal coverage of the higher-risk geo-climates, nor represents their proportion versus the surface of the country*
- **Adaptive Capacity** is represented by the *Human Development Index*

66. Using these proxies to represent sensitivity, exposure and adaptive capacity the following may be set out (Equation 2):

Equation 2

Country Vulnerability to Climate Risks =	**Country area – presence of geo-climatic risk*** * *neither assesses the areal coverage of the higher-risk geo-climates, nor represents their proportion versus the surface of the country*	**X**	**Aggregate of Governance & Absence of Violence Indices + the Food Security/Undernourishment Index** / **Human Development Index**

67. Multiplying the *Climate Shift* with the *Country Vulnerability Factor* generates the *Country CC Risk Factor* (Equation 3).

68. The country *Climate Shift Index* is obtained by weighting key climate variables to make up an overall projected degree of CC:

- Altered annual precipitation – mm percent change (from World Bank Portal)
- Altered mean annual temperature – ^{o}C (from World Bank Portal)
- Heat wave duration index - days (from World Bank Portal)
- Consecutive dry days - days (from World Bank Portal)
- Frequency & severity of cyclones – historical data (from UNDP ALM website)

69. Multiplying the *Climate Shift* with the *Country Vulnerability Factor* generates the *Country Risk Factor* (Equation 3).

Equation 3

Country Climate Change Risk Factor	**=**	**Climate Shift** (developed from World Bank Climate Portal data)	**X**	**Country Vulnerability to Climate Risks**

DIMENSION 2:

70. The next step is to describe the CSP portfolio into its components and filter these according to the sectors in which they nominally they fall (see *WORKSHEET "CSP INITIATIVES + SECTOR ANALYSIS*"). Then, four key questions are asked to determine whether or not each initiative is assessed as under significant climate risk.

Four questions asked about each CSP Initiative:

1. **Project Effectiveness:** At the end of the project implementation period, are the projected impacts of CC, CV or extreme weather likely to affect the **delivery of continued project benefits**, during the subsequent ten-year period?
2. **Project Efficiency:** During the project lifecycle, is it likely that projected impacts of extreme weather events and CC, could affect the project's **activities, results and outputs**?
3. **Sustainability Effects**: During the project timeframe, could extreme weather and CC cause impacts **that increase the vulnerabilities** of target beneficiaries, ecosystems and other related assets? Is there significant potential that the project could lead to **mal-adaptation**?
4. **Opportunities**: Are there any projected **beneficial impacts** from CC that could provide new opportunities opening to project stakeholders?

71. It is necessary to obtain inputs from Delegation CC focal points to validate the desk assessment of each initiative's risk level.

72. The calculation of the % Portfolio-at-Risk is then undertaken as follows:

- Once the initiatives under risk are identified in the CSP, then funds allocated to each at-risk initiative are summed to derive the overall % of CSP funds under higher risk;
- Combining the results of the two dimensions of analysis – the Dimension 1 Country Risk Factor analysis with the Dimension 2 Initiative level CSP/project screening – the percentages of funds allocated at risk are then adjusted by the *Country Risk Factor*;
- The *CSP % Portfolio-at-Risk adjusted by Country Risk Factor* is then ranked to select five of the ten CSPs that are assessed as under higher relative risk. It has been explained that a series of caveats should be applied when assessing these results;
- For the five CSPs with greater levels of climate risk, these countries were reviewed for their appropriateness for country visits, by considering further criteria; and,
- The CSPs of the two selected countries were then checked to decide which initiatives should be assessed in greater depth via country visits. Validated data from these visits have been included.

73. Note that the calculation for exposure adds a risk factor if (i) the country is classified as LDC and (ii) it is an island. The above, though, "penalises" smaller countries (*e.g.* Mali) that may have fewer geo-climes, yet are less able to respond to CC generally (than say India which has more geo-climes). A more refined approach, though one that would inevitably have required engaging with GIS, would require in-depth country data or use of proxies for population exposed. Exposure could also be related to historical disaster vulnerability, an approach not explored here. In addition, it should be emphasised that the results are country-dependent, and therefore cannot be simply extrapolated to assess the exposure of the whole EC portfolio.

74. The above provides the basic approach to determining % Portfolio-at-Risk. For an in-depth assessment of climate risk management applied to programming, the climate risk section proposed for the CEP would hold a database with information on climate observations and multi-model projections. This CEP section would provide a set of maps and diagrams displaying the currently observed climate in the

country and the projected climate for the country. Ideally, mean temperature, mean monthly precipitation, frequency of hot/cold days/nights, and indices of extreme precipitation are all estimated for the country based on observed and modelled data.

75. A detailed list of vulnerable sectors is necessary as is any data on the tolerance to stress of risk receptors and local livelihoods, in addition to data on integrity of ecosystems, environmental services provision and food security issues.

76. The CSP *Screening and Assessment in Climate Change Risk Evaluation,* is an Excel-based spreadsheet, and contains the linked information flows that determine the relative CC risk that each country portfolio is considered to bear. The Technical Appendices contain elevant extracts: *Results of Portfolio-at-Risk Screening,* the *Country Risk and Vulnerability Factors*, the Programme and Project Data taken from CSPs/NIPs *etc ~ basic descriptions and CC risk reasoning, and budget analyses*. Using the above approach, of the nine CSPs and the one RSP, the following CSPs were deemed to have somewhat more CC risk than the others: Egypt, Ethiopia, India, Mali and Papua New Guinea.

77. The overall results are summarised in Table 1.

TABLE 1
SUMMARY OF 'PORTFOLIO-AT-RISK SCREENING' - COMBINATION OF THE DETAILED EXAMINATION OF EACH INITIATIVE WITHIN THE CSP, WITH THE COUNTRY RISK FACTORS

DATA TYPE	Brazil	Egypt	Ethiopia	Guyana	India	Mali	Papua New Guinea	Philippines	Swaziland	Central America
Country Vulnerability Factor to Climate Risk ***Note: this does not account for climate shift***	0.15	0.18	0.61	0.17	0.40	0.17	0.41	0.32	0.21	0.13
Country Risk Factor ***Note: this includes an adjustment for projected degree of climate change approximated by the Climate Shift parameter***	**0.70**	**0.76**	**1.59**	**0.71**	**2.19**	**0.93**	**0.58**	**0.50**	**0.50**	**0.74**
CSP % Portfolio-at-Risk filtered by sector and by the four 'key questions' - derived from the Project and Sector Analysis Sheet	30	61	61	35	42	70	53	0	79	0
"CSP % Portfolio-at-Risk" - Country Risk Factor Adjusted	**21.0**	**46.4**	**96.6**	**24.6**	**92.5**	**64.6**	**30.7**	**0.0**	**39.7**	**0.0**
Ranking of CSP/country-risk filtered "% Portfolio-at-Risk"	**8**	**4**	**1**	**7**	**2**	**3**	**6**	**9**	**5**	**9**
Five CSPs originally selected with portfolios at higher risk - in the first version of this spreadsheet (prior to country visits and before including information from Delegations)	No	**i**	**i**	no	**i**	**i**	**i**	no	No	No

78. The assessment of the percentage of EC Portfolio-at-Risk for the nine countries and one region is given in Technical Appendix (T 1 B) and is summarised below (Table 2).

TABLE 2 Assessment of the percentage of EC Portfolio-at-Risk for selected countries ***

Country or region	Portfolio	At some CC risk?	Value of initiative (€M)	Value at risk (€M)	%	Reason why intervention is considered to be at some CC risk
Brazil	Municipal agreement for reduction of deforestation	YES	18,300,000	18,300,000		Forest resources such as NTFPs may be impacted by Amazonian drying in future decades. Short term - may be damaged by CV/droughts. In medium term (> 15 years) forest and agro-production systems may be significantly affected by all kinds of weather events (floods, droughts, wildfires). Activities likely to diminish some human influences - felling forests and setting fires while converting land use to livestock and crops - so reduce the specific vulnerability of fire flash points of drought-stressed forest stands.
	Institute of European Studies	NO	3,050,000	0		
	EU-Brazil Sector Dialogues Support Facility	NO	9,150,000	0		
	Academic Mobility Programme Brazil 2007-2010	NO	30,500,000	0		
			61,000,000	**18,300,000**	**30**	
Egypt	Support to the implementation of the Action Plan Programme (SAPP)	NO	17,000,000	0		
	Targeted support for sector reforms-Transport	YES	80,000,000	80,000,000		CC impacts on infrastructure are expected within shorter time frames.
	Support to Rural Development	YES	10,000,000	10,000,000		Few project details, but typically rural development programmes are likely to be affected by CC impacts. Assets and livelihoods of communities settled on river flood plains and on the Nile delta are under very high risk of climate impacts.
	Support for political development, decentralisation and promotion of good governance	NO	3,000,000	0		

Country or region	Portfolio	At some CC risk?	Value of initiative (€M)	Value at risk (€M)	%	Reason why intervention is considered to be at some CC risk
	ISWP (Improved water and waste water services programme)	YES	29,000,000	29,000,000		The Nile Delta region in Egypt (the target of this program) will be highly affected by CC (sea level rise, higher temperatures, less water): thus, this can easily have effect on the results of this programme
	SAAP III-Support to the Implementation of the Action Plan Programme and the Association Agreement	NO	20,000,000	0		
	Promotion and protection of human rights	NO	17,000,000	0		
	HSPSP II-Health Sector Policy Support Programme II	YES	110,000,000	110,000,000		This sector-level support has sufficient components located in exposed rural areas (health clinics) that some climate impacts might occur during implementation.
	Education Sector Policy Support Programme (ESPSP)	YES	120,000,000	120,000,000		Extreme events (such as droughts) may decrease school attendance. On a longer term, sea level rise may endanger school infrastructures in the Nile Delta
	200 Mega Watt Wind Farm, Gulf of El Zayt	No	20,000,000	0		
	Support for reforms and education	NO	20,000,000	0		
	Support to Good Governance and Local Development	NO	9,000,000	0		
	Research, Development and Innovation - Phase •	NO	20,000,000	0		
	Support for Modernization of Admin. of Justice and Enhancement of Security	NO	10,000,000	0		
	Enhancement of Cultural Activities in Egypt, Bibliotheca Alexandrina	NO	3,000,000	0		
	Water Sector Reform Programme II (BS)	NO	70,000,000	0		

Country or region	Portfolio	At some CC risk?	Value of initiative (€M)	Value at risk (€M)	%	Reason why intervention is considered to be at some CC risk
	Support to Implementation of Action Plan and Association Agreement - SAAP	NO	10,000,000	0		
			568,000,000	**349,000,000**	**61**	
Ethiopia	TECHNICAL COOPERATION FACILITY III (TCF III)	NO	5,000,000	0		
	SUPPORT TO THE PRODUCTIVE SAFETY NETS PROGRAMME OF ETHIOPIA / Rural Development and Food Security	YES	130,000,000	130,000,000		Typically, rural development programmes are likely to be affected by CC impacts.
	SUPPORT TO DEMOCRATIC INSTITUTIONS PROGRAMME	NO	3,000,000	0		
	SECOND PHASE OF PROTECTION OF BASIC SERVICES (PBS II)	YES	50,000,000	50,000,000		Typically, rural development programmes are likely to be affected by CC impacts.
	PARTICIPATORY FOREST MANAGEMENT PFM ETHIOPIA (CRIS 2008/019763)	YES	6,000,000	6,000,000		Typically forestry and biodiversity/rural development programmes are likely to be affected by CC impacts.
	Second Sector Policy Support Programme (SPSP II) in support of Ethiopia's Road Sector Development Programme (RSDP)	YES	200,000,000	200,000,000		Infrastructure under Intervention Area (i) is likely to be under medium term risks from climate change.
	Environmental Cultural and Biological Heritage	YES	10,000,000	10,000,000		The biodiversity resources programmed for protection may come under climate impacts in the medium term
	De-mining Programme	NO	5,000,000	0		

Country or region	Portfolio	At some CC risk?	Value of initiative (€M)	Value at risk (€M)	%	Reason why intervention is considered to be at some CC risk
	Macroeconomic support and governance	NO	244,000,000	0		
			653,000,000	**396,000,000**	**61**	
Guyana	INSTITUTIONAL STRENGTHENING OF THE NAO'S OFFICE	NO	1,000,000	0		
	DEVELOPMENT OF LAND USE PLANNING	YES	3,000,000	3,000,000		Much of Guyana's productive coastal areas is vulnerable to flooding and housing assets may be under risk.
	Sea Defence Sector Budget Support	YES	14,800,000	14,800,000		In some time periods the infrastructure will be tested to limits of design tolerance, after infrastructure creation
	Programme on Governance	NO	1,000,000	0		
	Technical Co-operation Facility	NO	1,000,000	0		
	Macroeconomic support to PRSP and MDG	NO	30,200,000	0		
			51,000,000	**17,800,000**	**35**	
India	Sector Policy Support Programme Phase II for Sarva Shiksa Abhiyan (SSA) (Education)	NO	70,000,000	0		
	Policy Dialogue Support facility	NO	10,000,000	0		
	Institutional capacity Building for the Civil Aviation Sector in India	NO	12,500,000	0		
	Health Sector Support Programme India	YES	110,000,000	110,000,000		Has sufficient components located in exposed rural areas (health clinics) that some climate impacts might occur during implementation.
	EU-India Capacity-building Initiative for Trade Development (CITD)	NO	7,500,000	0		
	EU India Study Centres	NO	10,400,000	0		

Country or region	Portfolio	At some CC risk?	Value of initiative (€M)	Value at risk (€M)	%	Reason why intervention is considered to be at some CC risk
	Erasmus Mundus External Cooperation Window - India Strand (Contracts 2008 and 2009)	NO	28,600,000	0		
	Climate Change Awareness Programme	NO	8,500,000	0		
	Culture Fund	NO	2,500,000	0		
			260,000,000	**110,000,000**	**42**	
Mali	FACILITE DE COOPERATION TECHNIQUE (TCF) 10EME FED	NO	2,500,000	0		
	DESANCLAVEMENT DU NORD DELTA DU NIGER,APPUI SECT. TRANPORTS	YES	165,000,000	165,000,000		Typically, rural development programmes are likely to be affected by CC impacts.
	CONTRAT OMD POUR LE MALI - PPAB 2	YES	148,000,000	148,000,000		Typically, rural development programmes are likely to be affected by CC impacts.
	APPUI DEVELOPPEMENT ECONOMIQUE ET SOCIAL DE LA CULTURE(MALI)	NO	4,800,000	0		
	Programme d'appui aux secteurs de production APE	YES	5,000,000	5,000,000		Typically, rural development programmes are likely to be affected by CC impacts.
	Programme d'Appui à la Réforme Administrative, à la Décentralisation et au Développement Economique Régional (PARADDER)	NO	75,000,000	0		
	Appui à la société civile		7,000,000			
	Solde enveloppe hors concentration (station d'eau potable de Kabala 18M, TCF 2,5M, appui au	NO	30,700,000	0		

Country or region	Portfolio	At some CC risk?	Value of initiative (€M)	Value at risk (€M)	%	Reason why intervention is considered to be at some CC risk
	développement du secteur de la culture 10,2M)					
	Programme d'Appui à la mise en œuvre du contrat plan de l'office du Niger		30,000,000			
	Programme d'Appui à l'Ordonnateur national du FED		2,000,000			
	Programme d'Appui à la Sécurité Alimentaire au Mali (PASA 5)		5,000,000			
	Solde enveloppe concentration (transport et développement économique des régions 53M, politique migratoire 5M)		58,000,000	53,000,000		CC impacts on infrastructure are expected.
			533,000,000	371,000,000	70	
Papua New Guinea	Rural Economic Development	YES	71,500,000	71,500,000		Typically, rural development programmes are likely to be affected by CC impacts.
	INSTITUTIONAL CAPACITY BUILDING OF THE NAO SYSTEM	NO	4,490,000	0		
	Human Resource Development Support	NO	39,000,000	0		
	Support for Non State Actors and Good Governance	NO	5,000,000	0		
	Technical Co-operation Facility	NO	8,500,000	0		
	Trade Support	NO	6,000,000	0		
			134,490,000	**71,500,000**	**53**	

Country or region	Portfolio	At some CC risk?	Value of initiative (€M)	Value at risk (€M)	%	Reason why intervention is considered to be at some CC risk
Philippines	Trade related technical assistance project II	NO	6,000,000	0		
	Support to MTF - Reconstruction and Development Programme	NO	1,000,000	0		
	Support to MTF - Reconstruction and Development Programme	NO	2,000,000	0		
	Support to MTF - Reconstruction and Development Programme	NO	9,000,000	0		
	Health Sector Policy Support Programme - Phase II	NO	36,000,000	0		
	Dialogue on Governance: Strategic Projects Facility	NO	6,500,000	0		
			60,500,000	**0**	**0**	
Swaziland	TECHNICAL COOPERATION FACILITY II	NO	2,500,000	0		
	Human Development (Health and Education Sectors)	YES	21,000,000	21,000,000		Components located in exposed rural areas (health clinics) might be exposed to some climate impacts after implementation.
	Water supply, sanitation, irrigation	YES	29,000,000	29,000,000		Any water components located in exposed rural areas are highly likely to be exposed to some climate impacts during and after project implementation.
	EPA/ SPS support	NO	1,300,000	0		
	Governance	NO	8,200,000	0		
	Support to Non state actors	NO	1,000,000	0		
			63,000,000	**50,000,000**	**79**	

Country or region	Portfolio	At some CC risk?	Value of initiative (€M)	Value at risk (€M)	%	Reason why intervention is considered to be at some CC risk
Central America Region	Second Programme of Support to Central American Regional Integration	NO	15,000,000	0		
	Consolidating the customs union and related harmonised and common policies	NO	47,000,000	0		
	Strengthening regional governance and security matters	NO	8,000,000	0		
			70,000,000	**0**	**0**	

3.2 Evaluation of Climate Risk Coverage in CEPs and CSPs

79. Far-reaching and growing implications of CC and variability indicate that serious attention needs to be paid to how weather hazards, changed climates and CC trends will increase the level of risk to which EC development could be exposed. Those involved in EC country programmes must properly appraise the implications of an altering climate for partner governments/countries, for projects and for the delivery of their aid. This process of appraisal and subsequent aid delivery planning, when carried out systematically for existing and planned programmes, is termed "*mainstreaming*" – defined in the EIH as: "*...the process of systematically integrating a selected value/idea/theme into all domains of EC development co-operation to promote specific...and general development outcomes*".

80. Mainstreaming of CC risk requires considering national and sector climate risk issues proportionately, compared with the inevitable risks (institutional, governance, capacity *etc*) that usually affect development aid delivery. Mainstreaming assumes that there is readiness and capacity of the partner government and development stakeholders to work with the EC on CV adaptation.

81. The CSP is the key planning instruments used by the EC to guide programmes of assistance at country level. Guided by both the objectives of the partner country and of the donor, the CSP governs the development co-operation goals, specific areas of intervention, the volume of resources to be committed and the aid delivery methods. Environmental aspects to be taken into account in the planning process are analysed in standard Country Environmental Profiles (CEPs). The role of the CEP is crucial in assessing also the level of partner CC preparedness, the current state of understanding of CC and for providing an analysis of climate variability (CV) issues. The CSPs do not identify CC issues in elaborated and consistent ways. When CC is mentioned in most cases, it is referred to as a mitigation concern, even when serious projected impacts are apparently recognised.

82. The implications of unaddressed CC are potentially so large and encompassing that they constitute a threat in many sectors and to almost all the MDGs. Consequently, the Study Team argues that CC should be treated as a high-priority special issue within CEPs, *above that given to typical environmental issues*. This is because the climate of any locality is a major determinant that sets the context for ecosystems and for much of usual human activity – leading to our view that CC is not an environmental issue *per se*. Risks posed by loss of other natural resources (*e.g.* water availability) are a similarly defining characteristic, as is human population growth rate. In the same way that resource limitation and population are valid socio-economic and even national security challenges, so is climate change.

83. The climate content in ten CSPs/RSP were analysed using the following criteria:

    - Location in the documents of significant mention of climate vulnerability, impacts and adaptation issues
    - Which CC issues were identified in the CEP
    - Overall depth of coverage in the CEP – statement of the problems, sectors affected and any strategies identified that offer solutions
    - Translation of any climate issues coverage in the CEP into the CSP and use made of that information to define programmes

84. A cumulative summary of the coverage in both CEP and CSP was generated by assigning brief content into the categories in Table 3 (a) and (b).

85. Two findings noted are:

    - Word searches of CSPs (as Adobe/MSWord documents) found more references to "investment climate", rather than climate as such. Even so, many CEPs returned fewer than a dozen mentions

    - Great variability in coverage was noted, with greatest coverage in the CSPs for Guyana, Ethiopia and Swaziland. While initial and global statements about the gravity of CC were made in some CSPs/CEPs, climate projections from the IPCC Third Assessment were rarely mentioned (except for Guyana, Swaziland). Little use made of the countries' First UNFCCC National Communications. In one case, the emphatic tone of the Ethiopia CEP meant that the authors seemed little disposed to cover regional projections for East Africa and their implications

TABLE 3 (a) Evaluation of Climate Content in existing CEPs and CSPs (Brazil, Egypt, Ethiopia, Guyana and India)

Criteria	Brazil	Egypt	Ethiopia	Guyana	India
Coverage of climate risk and national CRM strategies in CEP	Mentioned in relation to forest fires and deforestation Included with regard to international conventions as mitigation and avoided deforestation theme	No mention	Donor initiatives criticised as rural development jargon, because seen to fail to take account for historical perspectives; to look at local climatic interrelationships and to grasp that most recent rural development interventions already designed to mitigate CV Consistent heavy emphasis by Government and donors on irrigation, soil and water conservation and water harvesting. Good coverage of NAPA and other donor efforts. Propose starting by recognising that mitigation strategies are at centre of basic livelihood anti-risk strategies	Theme of improving environmental governance related to need to mitigate effects of SLR and for flood forecasting and warning Proposes programmes to enable municipalities to lead in coordinating and preparing for emergency response Mentions various donor CRM initiatives, the National Climate Committee, and Regional Caribbean Planning Supplies a detailed Climate change and vulnerability assessment setting out major constraints: SLR and flood control / preparedness	Main challenge is defined as helping India contribute to global mitigation efforts by developing institutional capacity to implement economic and technical responses Problem statement is that CC will have severe adverse impacts on precipitation patterns, ecosystems, agriculture, forests, water, coastal and marine resources, and disease vectors, affecting the poor/marginalised. No subsequent sectoral analysis
Consistency with climate projections and reflected understanding	No mention of CC science and expected impacts in CEP CSP does have a paragraph listing expected CC impacts by ecosystem, and how this will affect settlements and human health	No mention	CC seen as a serious threat to economic and social sectors (natural resources basis, particularly biodiversity, ecosystems, water, agricultural and health) as the drought intensity is likely to increase	Scarcity of information is noted for flood risk assessments and for inability to turn weather data into an integrated flood warning system	No mention except global statements
Translation of any CRM coverage from the CEP into the CSP	CC is one of many topics listed for policy dialogue Avoided CC is included as one justification for Environment as a priority – but only through reduced deforestation, not accounting for likely climate risks on sectors	Single mention that country is expected to be seriously affected by the consequences of CC	Chronic food insecurity increases vulnerability of the rural population to climate shock CC understood as contributing to environmental and socio-economic problems. Ongoing CC related to famines that could possibly affect 15 to 20 million people and strains coping capacity of Government and donors Productive Safety Net Programme to be designed to cushion rural poor against weather shocks to income and livelihoods	CSP does not reflect the depth of analysis in the CEP. SLR is mentioned, but not the equally important topic of municipal and other local flood response Only sea defence is carried across to CSP from CEP, and land-use planning added instead	Energy, environment and CC are seen as key priorities of the EC Action Plan but only concludes in proposing India-EU Initiative on Clean Development CC awareness project in NIP is not mentioned in CSP No programmes promoting adaptation to impacts are included

TABLE 3 (b) Evaluation of Climate Content in existing CEPs and CSPs (Mali, Papua New Guinea, Philippines, Swaziland and Central America)

Criteria	Mali	Papua New Guinea	Philippines	Swaziland	Central America
Coverage of climate risk and national CRM strategies in CEP	CV is thoroughly covered as in the relations between vegetation types, livelihoods and climate across Mali's regions Few implications are drawn for sector climate impacts and for focal sector selection	Problem statement sets out concerns about drought, linkages to Niño / La Niña phenomenon, and risk of extreme rainfall events, high sea levels, extreme winds / temperatures that may further intensify with global warming Increased temperature and humidity noted to increase spread of disease vectors such as mosquitoes, but no mention of relationship with altitude, elevation and habitation zones No mention of the implications for biodiversity and current cropping regimes that heavily depend on climates at higher elevations, Altered seasonality mentioned as shift in the timing of the dry and rainy seasons CC section only covers REDD and mitigation issues	National Action Plan on Climate Change mentioned, as is the Inter-Agency Committee on Climate Change Programmes and collaboration with other donors is limited to CDM-type renewable energy projects DRM is well covered and noted as basically just response and relief and little on reducing risk and preparedness	Problem is stated as CC is expected to have a detrimental effect on land degradation through a reduction in vegetation cover and changes in species composition, as well as through increased deforestation, desertification and disaster hazards Links with Agricultural Sector Policy and the National Food Security Policy are mentioned	Some coverage supplied, but limitation noted that the issue of CC did not receive all the attention needed, and that the topic would be better handled by a specific missions Climate determinants on vegetation and sectors are well characterised, and disasters such as Hurricane Mitch is fully described
Consistency with climate projections and reflected understanding	No mention of projected impacts	Almost no mention except globally	No mention despite clearly accessible climate information such as National UNFCCC Communication	Observed warming of 1° C between 1900 and 1980 is mentioned CC projections are summarised – they suggest that *by 2050 temperatures and rainfall over southern Africa will be 2-4° C higher and 10-20% less than the 1961-90 baseline.* Impacts on livelihoods are listed as well as the regions more affected.... and that in the long term CC and desertification will impact biodiversity	Very limited use of projections information – SLR was quantified for Belize No discussion of sector or regional implications
Translation of any CRM coverage from the CEP into the CSP	CEPs provides good baseline data, but is poorly used in the CSP analysis	SLR effects on coasts and atolls is mentioned No mention of climate risk in profile of rural economic development programme	No translated content found	Climate risk is well characterised as '*High vulnerability to climate change impacts on vegetation, soils, biodiversity, productivity and livelihoods*.' CEP impacts analysis is translated into CSP - impacts of CC on water resources will lead to increased possibilities of flooding and drought-related conditions in winter and 'climatic zones are expected to shift and be replaced by drier and hotter climates' However, no analysis implications for sectors were supplied	Virtually no mention of climate risks in the RSP

86. Inconsistency was marked between initial problem statements and later coverage, as adaptation and sector issues were usually absent even when CC had been more or less stated as a key problem. Instead, reference in several CSPs was the requirement to participate in mitigation efforts, as if that might reduce climate impacts, implying remarkably poor familiarity with the science behind CC, and of the major differences between adaptation and mitigation. Some examples show this in detail:

- § India's CEP develops a fuller problem statement, stating that..... *anthropogenic CC ....increased carbon emissions ...severe adverse impacts on India's precipitation patterns, ecosystems, agricultural potential, forests, water resources, coastal and marine resources, ... increase in range of several disease vectors... will adversely affect the poor and marginalized that depend largely on agriculture, forests and marine resources for their livelihoods. EC can also help India in the transfer and adaptation of suitable technology ..... institutional capacity to formulate, assess and implement economic and technical responses to CC issues.* However, the fact that India is "*very vulnerable*" due to a "*densely populated and low-lying coastline ... economy tied to natural resource base*" leads to proposals for Clean Development, rather than CC adaptation programmes;

- § Papua New Guinea's CEP sets out a list of concerns identifying atoll loss due to SLR as one of many environmental challenges, but implying that the impacts of mining, illegal fishing, uncontrolled logging and deforestation are likely to be more important than SLR as current priorities: *.. impact of CC on human health is grave ... increase in temperature and humidity increasing the survival chances of disease vectors... manifest as an increase in the number of dengue fever and malaria cases peoples' livelihoods .. shift in the timing of the dry and rainy seasons may adversely affect natural resources ... and reduce the agriculturally productive time period emissions relating to CC have the potential to seriously affect the socio-economic situation of the population.* But the PNG CSP does not carry over any of this analysis into impacts studies or mention of adaptation, instead leading into REDD as if that might be a solution to oncoming climate change;

- § Egypt's CSP mentions CC as causing '*serious impacts*' and then sets this as a reason for national GHG reductions;

- § Brazil mentions "*potentially catastrophic consequences in the Amazon*", and includes CC as a key issue for policy dialogue and as the rationale for deforestation control efforts, which are both then set into NIP;

- § In some cases, such as the Mali CEP, this has good coverage of climate as a determinant to livelihoods, but usually does not develop CC as a significant risk, sometimes as crosscutting issue;

- § The interesting case of Ethiopia's CEP which makes these points, for example: *...the debate on CC and mitigation of impacts...has failed to take a meaningful historical perspective...ignoring the fact that the highlands of Ethiopia have been subject to high degrees of climate change and extreme weather events for several centuries...this dimension is virtually absent...despite the great geographical variation from one valley or microclimate to another. The humanitarian debate...near-obsessive focus on catastrophic and negative scenario events...which...bypasses the positive aspects of Ethiopian climate variability. No attempts to disentangle the inherent spatial and temporal micro-variability and erratic nature of the Ethiopian climate from impact of local and global climate change. Debates on CC too focused on the presumed impact of global CC and insufficiently addresses the local climatic interrelationships intervention. Frameworks for adaptation measures fails to highlight the critical fact that previous food security/rural development programmes and measures were already implemented with drought and flood mitigation as their core strategy.* Sadly, this CEP indicates little understanding between CC impacts and governance; and,

- § Guyana and Swaziland's CEPs are judged to have supplied broadly adequate climate risk coverage, consistent with the requirements and state of knowledge at the time. Only these two CEPs covered CC issues at any depth in relation to sectors and the potential of climate risk to affect development processes via feedbacks such as land degradation, loss of water supply and quality and ecosystem loss. Even so translation into CSPs was unclear, certainly in the Guyana case, where a clear CEP priority assigned to support building municipal flood response and preparedness capacity was ignored in the CSP.

87. The following conclusions are drawn:

- § The CSPs do not identify CC issues in elaborated and consistent ways. When mentioned in most cases, it is referred to as a mitigation concern, even when serious projected impacts are apparently recognised;

- § The CEPs do explain partner adherence to international conventions such as UNFCCC, though do not usually cover projected impacts in sufficient detail reflecting the limited request for inclusion of CC issues in earlier versions of the ToRs of CEPs.

- § The state of the issue is quite understandable with hindsight, considering the uneven process of mainstreaming standard environmental issues into the CEP-CSP process, reflecting the limited request for inclusion of CC issues in earlier versions of the ToRs of CEPs.

88. However, of more concern is the lack of translation of issues across from CEPs to CSPs such that perhaps some CSPs were prepared *before* the relevant CEPs. That possibility has not been tested.

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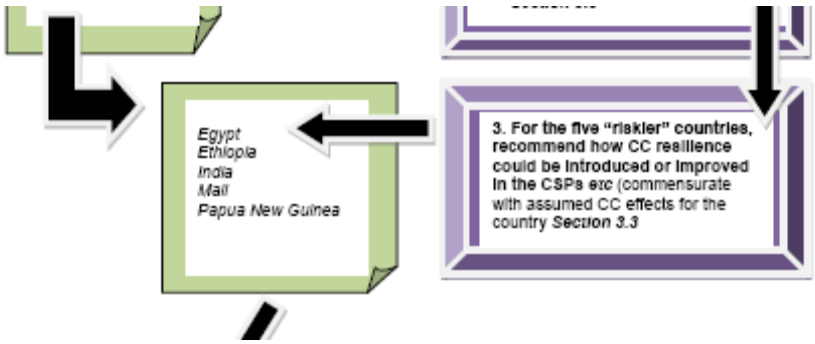
3.3 Climate Change Resilience-Building in the CSPs at risk



89. Incorporation of climate/disaster management 'entry points' into the CSP/NIP, as pre-identified in the Sector Scripts (included in the Environment Integration Handbook) should result in "climate and disaster risk management integration outcomes" achieved via immediate, medium and long-term actions within the EC's response strategies. The theme of "climate change and disaster - vulnerability, impacts and adaptation" would then receive the same attention as environmental, social and economic concerns.

90. Various sets of country strategy papers are to be reviewed in their approximate mid-terms, in successive phases over the next few years.

91. Effective climate risk management within the programming process and resulting documents should:

- § Be informed by descriptions of the state of knowledge about CC impacts by geographical area and sector on scales from global, regional, national, provincial to local;

- § Draw on assessments of the policy agenda of the partner country, including current and potential future status of national CC policies, legislation, institutional structures and their linkages to sectors;

- § Treat CC as a cross-cutting issue (as for environment) via a dual approach, both as a focal sector within programming documents, and as a cross-cutting theme treated across sensitive or exposed sectors;

- § Select priorities based on expressed reasoning as to how CC risks affect the sectors chosen, based on data on trends in climate/weather variables and in climate impacts;

- § Pay due attention to interaction between climate impacts/disasters with typical environmental problems, and show how strategies can tackle the expected levels of combined risk;
- § Show how national and sector climate risk issues stand in comparison with other risks facing aid delivery, such as weak institutions, poor governance and low capacity;

- § Make clear arguments for how climate and disaster risk considerations influence the selection of the focal sector and intervention strategies, bearing in mind that in most cases the purpose of climate change adaptation would not be to systematically select 'climate change' as a focal sector, but rather to address climate and disaster risk issues within any focal sector that is selected;

- § Assess, for the focal sectors chosen within the CSP, climate/disaster risk management as an issue affecting objectives, approaches, strategies, work programmes and budgets. Options for the three main types of integration project should be developed: (i) at national level; (ii) at programmatic level; and (iii) across scales from to local community to sector levels;

- § Seek opportunities for coordination on CC issues with other donors, achieving complementarities and synergies to deliver climate risk management outcomes, in particular by making good use of CC assessments prepared by other donors;

- § Specify indicators relevant to climate risk management in NIPs and/or in formulation of GBS or SPSP, ensuring that selected indicators measure performance in terms of actual climate risk management outcomes;

- § Explain for selected priority sectors and aid modalities, which 'climate risk management safeguards' can be identified - such as institutional strengthening, capacity building and policy dialogues; and,

- § Develop detailed recommendations, guidelines or criteria for mainstreaming climate risk and disaster management concerns into cooperation areas, including donor "entry points" for climate risk management integration outcomes.

92. While crossovers may be made with mitigation in defining sector priorities, given the ease with which confusion is created between the two aspects, it may be best to treat mitigation as a concern within environment (due to the effects of GHG in boosting global warming) while the risks of impacts from a modified climate are defined as a development, anti-poverty and national security priority. This may indicate that the EC would seek to promote policy developments such as partner National Climate Change Strategies, and, for LDCs, the integration of documents, such as National Adaptation Plans of Action, into their respective Poverty Reduction Strategy Papers.

93. If the two themes of '*climate change and disasters – vulnerability, impacts and adaptation'* are given the same level of priority as 'the environment', then the CEP preparation process should result in a comprehensive climate adaptation section within the main CEP document. Just as CEPs themselves have helped integrate the environment into EC programming, now the CC section of CEPs must carry enough weight to push through CC risk management into the CSPs, by documenting the issues in sufficient depth to inform programming from a CC, disasters impacts and adaptation point of view.

94. Recognising the revised guidance planned for the next Handbook and the need to be practical, it is proposed that the section in future CEPs should be developed as indicated below (see *Figure 4*):

Figure 4 **Proposed contents for a Country Climate Change Risk section in the CEP**

1. **Country climate change and variability situation** - current impacts and those projected over time - state of science and national-level understanding of the issues. Assessed information and analyses of expected effects (by sector and by geographical scale - regional, sub-regional, national, provincial and local)

2. **Observed climate change links to poverty and ecosystems** – trends, pressures and exacerbating causes – identified drivers of human/ecological vulnerability to CV - overall estimate of 'vulnerability factors'

3. **Partner capacity to respond to the consequences -** climate resilient development strategies and processes in place, or under development. In-depth and accurate analysis of partners' existing and planned efforts to address climate-related issues, in their technical, legal and institutional components

4. Overview of EC and other donors' **relevant current and planned CC-related activities** - by sector

5. Potential for **Low Carbon Development Strategies**

6. **Implications for EC programming -** potential CV adaptation outcomes and any new focal areas of cooperation, guidelines or criteria for mainstreaming adaptation in co-operation areas and sector/budget support*

** It is clear, however, that due to the demand driven and complex nature of the EC Cooperation with third country partners, EC activities will continue also in sectors and areas where the climate risk is considered very high, when deemed a priority by the recipient government. The methodology proposed here should enable the staff involved in the different stages of the programme cycle to inform themselves better of the risks involved and prepare their plans and budgets accordingly – thus reducing the overall risks to acceptable levels.*

95. Until a new CEP is developed, any upcoming Mid-Term Reviews (MTR) would be the main option to introduce some of the issues described in Figure 3. Where MTRs are not appropriate, any new rounds of CSP formulation of country and regional strategy papers would also be entry points for integrating climate risk with DRR into EC actions. *Note also (as indicated in checklist above) that due to the demand-driven and complex nature of the EC Cooperation with third country partners, EC activities will continue also in sectors and areas where the climate risk is considered very high, when deemed a priority by the recipient government. The methodology proposed here should enable the staff involved in the different stages of the programme cycle to inform themselves better of the risks involved and prepare their plans and budgets accordingly – thus reducing the overall risks to acceptable levels.*

96. Calling on EC experience with environmental mainstreaming, other factors must play a role, such as boosting the role of motivated EC staff (for example Delegation 'champions' of climate risk management); ensuring effective inputs of EC DGs (such as AIDCO Unit E6 and DG Environment); consolidating the role of units (such as the Environment Integration Project and the new Global Climate Change Alliance (GCCA) Support Facility; and supplying high-quality training to EC staff on CC integration.

97. For the next generation of CSP programming, there are opportunities to select sectors, and if justified change or add-in new areas for support. An initial list of aspects to be taken onto account could include:

- § How far the sector could be vulnerable to risks arising from climate change and variability;
- § The extent to which sector-wide climate change risks can be prevented or adapted;
- § The extent to which the projects in this sector could inadvertently lead to increased vulnerability, leading to mal-adaptation, which should be prevented; and,
- § The extent to which sector-wide opportunities arising from CC have been missed

98. Specific stand-alone interventions might be promoted, for example those that improve the handling of CC information, or similar direct risk management initiatives that directly confront climate impacts. Direct confrontation of climate and disaster impacts could involve support to the structuring and provision of meteorological information for adaptation planning should be integrated with knowledge management for national DRR platforms and implementation of the Hyogo Framework for Action (2005 -2015).

99. Climate change inclusion in CEPs and CSPs, should take into account regional UN and EC Action Plans for DRR in disaster-prone regions, requiring scaling-up and integration of existing (EU/other donor) DRM programmes, with complementary climate adaptation initiatives supported by the EC or other donors.

100 Strategies and processes in the chosen sectors should interact across beneficiary government structures and at a large enough scale to build needed resilience within the medium term. This applies both to current key sectors of EC assistance, and to potentially less-attended support areas, where other donors have limited plans to become involved.

101 Despite their transaction costs, projects enhanced by climate-risk management issues should still continue as significant elements in CSPs. These will continue to have a key aid-support role, generating local benefits while potentially offering good practice in adaptation planning, capacity-building and enhancement of local resilience. As mentioned previously, due to the demand-driven and complex nature of the EC Cooperation with third country partners, the EC activities may still continue also in sectors and areas where the climate risk is considered very high, when deemed a priority by the recipient government. The methodology proposed here should enable the staff involved in the different

stages of the programme cycle to inform themselves better of the risks involved and prepare their plans and budgets accordingly – thus reducing the overall risks to acceptable levels.

102 Other mechanisms may be covered too, including screening of non-CSP programmes such as; ECHO emergencies/DIPECHO preparedness programmes, thematic programmes that engage with environmental and natural resource issues through calls for proposals, as well as regional programmes such as Asia SWITCH.

103 In parallel with donor activity on CC management on the donor portfolio itself, wider donor engagement is critical. If awareness about CV and adaptation is low across the institutions of the country partner government, then the effectiveness of donors will be limited. Options for awareness-building must be examined that strengthen capacities to implement strategies down levels of government levels to the local and community levels. A CEP offers the opportunity to identify and then take into account the current status of, and priority given to, CC management across the partner government and civil society.

104 For countries with high levels of vulnerability and exposure, that are actively seeking donor support, assembling relevant information may require substantial investments of staff time and resources and would provide an ideal opportunity for donors to co-operate in the preparation and sharing key common information CC sources. To ensure 'ground-truthing' and data validation, national and international development and environmental experts work alongside with the EC, civil society and government.

105 All recommendations about including CRM and DRM in CEPs/REPs obligatorily require that CEPs and their recommendations should be systematically followed-up when preparing CSP/RSPs. A monitoring and evaluation system should analyse the fidelity of translation of key recommendations across from the CEP into the CSP.

106 OECD policy guidance has emphasised how integration of resilience-building into CSPs requires an analysis of partner government governance architecture, and of the different stages of the policy cycle, where entry points may be identified so that CC adaptation is incorporated. The obvious time to do this could include stages in the formulation of national policies, long-term and multi-year development plans, sectoral budgetary allocation processes, as well as regulatory processes.

107 The Study analysis, and lessons from DFID (Biot, pers. comm.), shows that the capacities of developing-country partner governments to tackle CC impacts depends upon meeting the following challenges (which could be considered to be specific questions that authors of CEPs could ask):

Figure 5 **Checklist for assessing CC awareness and information management capacities**

CEP Country Climate Risk Section – a detailed checklist for assessing partner government and wider society climate awareness and information management capacities

- Degree of understanding about what constitutes CC, as against naturally occurring climate shocks and cycles, as against – e.g. the environmental problems due to unsustainable land management practices.
- Level of awareness about possible CC impacts across the range of CSP stakeholders, likely effects of CC on the poor / for poverty reduction, and knowledge of effective adaptation actions.
- A list of stakeholders involved in climate risk information management should be generated, covering in particular depth those public, private and civil society actors who have actively contributed to the 2nd National Communication to UNFCCC. Some analysis of their interactions and roles should be prepared, if possible in coherence with other active donor agencies. Knowledge of these organisations and key individuals should be catalogued and available beyond Delegation staff to other contributors to country aid delivery.
- The quality and dissemination of scientific information using downscaled CC impacts to regional and finer scales. Drawing on the 2nd National Communication to UNFCCC, the climate risk annex should link to maps and diagrams to inform text about observed climate and IPCC regional ensemble model projections.

- Effective mechanisms for cross-sectoral coordination of adaptation actions by strong central bodies, such as office of President or Prime Minister or Finance Ministry.
- Extent to which climate risk is already, or envisaged to be, mainstreamed in development policies and plans like long-term visions and poverty reduction strategy papers and strategies agreed for joint donor working.
- Specific extents to which climate risk is included in sectoral policies and strategies (for water, agriculture, natural resource management, infrastructure, coastal management, health and decentralisation). This requires specific information about how CC could impact government functions, e.g. delivery of local government services under climate stress.
- Extent to which CC is coordinated with disaster risk reduction (DRR) strategies as reflected in adaptation measures integrating DRR measures with climate vulnerability reduction.

108 A checklist has been developed that fits all the five countries and provides suggestions for solving these typical difficulties. The "In-Country Abilities" list (based on Biot *pers. com.*, DFID) from a field visit report to Indonesia, and was further elaborated from development research literature and Study Team observations during country-visits. It could, to varying degrees, apply to most countries:

TABLE 4 Checklist of aspects to be covered in a more climate-change-resilient CSP

IN-COUNTRY ABILITY	TYPICAL COUNTRY CHALLENGES	RECOMMENDATION
Political mandate and institutional frameworks	- Weak political engagement of elected agents at all levels of government - Confusion between adaptation and mitigation impeding communication - Poorly set up Climate Change Office with no legal framework or agreed coordination role or work plan - Vertical and sectoral push from the top poorly matched with bottom-up approach to integrate climate into development	+ CC participatory SWOT analysis towards generating clear, accepted and strong mandates + Climate change awareness and education programmes that develop climate change understandings and efforts beyond mitigation focus targeted at parliaments, senates, congresses and other bodies, down to municipal level
Engagement by development planning authorities	- Unclear definition of roles and responsibilities between the climate change coordinating office and other ministries? - Partial isolation of CC from DRR and national development policy setting processes?	+ Identify current arrangements with government agency for CC and indicate the problems to be tackled + Support the generation of an institutional design that is transparent and accepted across key Ministries
Climate resilient national development plans such as poverty reduction	- Grasp of the relationships between CV with MDGs, poverty reduction, ecosystem conservation and environmental management - Extent to which climate change is already (or envisaged to be) mainstreamed as a national priority	+ Assess the organisations involved in the 2nd UNFCCC Communication for leadership and prepare plans to support partner government needs
Climate resilient sectoral development strategies	- Status of current version Info about specific sectoral issues - Specific information about how climate changes could impact core government functions - Level of sharing of information and good practices specific to sectors	+ Describe relationships and propose options, with particular emphasis on the adaptation potential of different sectors + EC sector support to decentralised economic development to include specific measures for CRM capacity building across stakeholders
National development plan is translated into the budgetary process	- Becomes a critical indicator of practical action and distribution of resources to tackle adaptation sectorally and to lower tiers of government - Infighting between govt bodies about the potential allocation of donor resources	+ Depending on the answer above, identify appropriate EC resource allocations and methods + Propose climate change actions within Mid-Term Development Plans with allocated resources into national and provincial budgets

IN-COUNTRY ABILITY	TYPICAL COUNTRY CHALLENGES	RECOMMENDATION
Mechanism to align any international adaptation finance into national budget	- Where current plans consider off-budget deployment of ODA sources and/or separation of ODA from UNFCCC sources, this implies a risk for uncoordinated development and CC action	+ Identify current arrangements and indicate necessary realignments
Cross-departmental coordination	- Identify and agencies with mixed technical and institutional capacity - Legal basis for cross-sectoral coordination and transparency in front-man role of any delegated authority seeking to represent the interests of other Ministries before donor communities	+ SWOT analysis of CC agencies + Promote use of SEAs that require participatory action research working cross-sectorally
DRR capacity	- Implementation of DRR mainstreaming programmes - Capacities of DRM actors to map hazards and better integrate climate change data into projections capabilities - Capacities of national DRM agencies to interact with climate change authorities and relevant bodies of science research (including geographical information, sociology of vulnerability and economics) - Involvement of DRM agencies and communities in CC adaptation policy formulation	+ Propose potential solutions that bring together national CC and DRM actors, with international collaborators + Develop practical partnerships between DRM and CRM communities on specific regional or sectoral issues of mutual interest + Involve DRM researchers and practitioners in 2nd UNFCCC Communications Promotes analysis of knowledge management issues and overlaps between adaptation and DRR with CC and DRM communities and policymakers
Local government	- Definition of the role of local government - No policy framework mandated or sector ministry encouragement	+ Improve extent of decentralisation and encourage development of capacities to address local sustainability issues + Develop and promote local government performance assessment frameworks that include Adaption to Climate Change and Disasters as a key indicator
Civil society	- Extent of informed civil society – both in terms of political and developmental dimensions - Poor development NGO abilities to analyse climate change implications	+ Improved civil society engagement via climate change awareness and education programmes + Promote climate risk management by obtaining involvement (beyond environmental NGOs and organisations specialised in disaster management), to cover organisations dealing with development and poverty reduction, so they begin to know how to address it.
Private sector	- Degree of parties being informed - Perception that climate change is an environmental issue	+ Identify key private sector stakeholders and engage in awareness-raising. Discuss and isolate key vulnerabilities. + Vigorously promote the wider framing of CC impacts as a potential business risk, even affecting business continuity in disasters
Policy implications of CC for development	- Poor policy analysis capacities across all stakeholders - Unanalysed implications by stakeholders in climate exposed sectors	+ Identify current arrangements and indicate necessary strengthening + Encourage province level scoping studies and sector studies + Use SEAs to identify key policy CRM and DRM weaknesses at sectoral levels

IN-COUNTRY ABILITY	TYPICAL COUNTRY CHALLENGES	RECOMMENDATION
Information on climate change and impacts	- Limited national capabilities in downscaling GCMs - Poor quality of data on observed climate - Limited capacities of national meteorological services – in data analysis and interpretation and in practical connection of forecasts with end-users (such as farmers for seasonal forecasts) - Extent and depth of available sources - Quality of dissemination of scientific information - Level of transparency and cultures of communication	+ Improve availability of coherent information beyond 1st UNFCCC Communication. + In EC-funded projects, promote partnerships between national and international scientists + Develop EC-funded technically orientated projects that develop the capabilities of regional and national meteorological agencies + Encourage learning projects that break new ground by connecting forecasting communities with natural resource managers (for example with farmers transmitting rainy season forecasts by radio) and for municipal civil contingencies responses (i.e. mobile phone flood alerts)

3.4 Budget Support and Climate Change

109 Calculations show that costs of adaptation and corresponding needs for financial support are high. The international donor community faces the questions on how to meet these financial needs and how to channel available funds to developing countries and vulnerable communities. A strong trend is well-established towards programme-based approaches and general budget support for financing multi-sectoral poverty reduction strategies.

110 As traditional project-based aid instruments are already declining in importance, they are thought to be unsuited – beyond a role for pilot projects that generate good practice – to handle the large volumes of adaptation funding needed in the medium term. Sholz *et al* (2008) have argued that '*...the need to transfer large amounts of money cannot be met through a project-by-project-based approach alone, which is currently still common practice in international adaptation funding...*'

111 Equity and justice concerns impose further complexities on development cooperation, as developing country negotiating positions increasingly argue that adaptation funding must not only be substantial in volume, but be provided additionally to ODA, without the usual aid conditionalities. However, it is difficult to separate ODA and adaptation expenditures, due to the overlaps between poverty reduction measures and measures that are designed to specifically reduce vulnerabilities to CV. Addressing the drivers of vulnerability to CC through capacity development in stand-alone projects makes it easier to distinguish efforts to deal with climate risks, but this is then in conflict with the need for large volumes of non-project funding.

112 Sector policy support programmes (SPSP) and general budget support (GBS) support recipient countries' sector policies, national development and poverty reduction strategies. Differences between the two approaches are the focus of the accompanying policy dialogue between donors and recipients, and the conditions attached. For general budget support, dialogue covers the ensemble of government policies and can be used to explicitly account for issues that cut across sectors.

113 There are also well-known difficulties with budget support some of which are:

1. Service expansion has often been at the expense of service quality
2. Incompatible mainstreaming weakened by inconsistencies between government and EC environmental commitments, due to country partners having other political priorities higher than the environment - which then hinders the EC's attempts to shift the focus towards climate change adaptation, particularly when this is understood as part of 'the environmental agenda'.
3. Progress in strengthening financial management systems has been slower than expected by donors
4. Conclusive evidence on the extent to which budget support has yielded better value for money than other ways of delivering aid, or has had an impact on income poverty, is not available.

114 So where does dealing with CC through budget support fit? Looking at each of the Principles of the Paris Declaration on Aid Effectiveness, there is a case that budget support could deliver CC adaptation:

Ownership: Partner countries exercise effective leadership over their development policies and strategies and coordinate development actions.
To the degree that partner countries consider climate impacts as major risks to development and are aware of options to mitigate/adapt to impacts, then donors could judiciously contribute with technical inputs that account for and contribute to partner country's own policies.

Alignment: Donors base their overall support on partner countries' national development strategies, institutions and procedures.
Clear and robust national and sector institutional frameworks are vital for steering the efficient incorporation of adaptation policies and management of donor offers of support, for example avoiding needless duplication with ongoing efforts to embed disaster risk management throughout all government levels.

Harmonisation: Donors' actions are harmonised, transparent and collectively effective
Smooth and authentic donor joint-working is critical as each should be aligned with each other to a common agenda that avoids competitive jostling for position and allows for fluid operation of any partner government partnership mechanism towards meeting country priorities.

Mutual accountability: donors and partners are accountable for development results and for high quality management for results requiring well-managed resources and improving decision-making.
All parties in aid delivery want results. Attributing particular benefits and improvements in MDGs to specific donors however may not be achievable or traceable when general budget support is the vehicle. This could be overcome to some extent by dedicated budget support groups that coordinate policy dialogues with the recipient government, assess performance, and approve the conditions for disbursement of individual donor contributions.

115 Clearly GBS, usually accompanied by policy dialogues with the beneficiary government, could focus on addressing cross-cutting issues relevant to adaptation to climate change. However, GBS is usually explicitly untied to specific programmes meaning that attributing use of funds to outcomes is virtually impossible. This may be an insuperable obstacle to efforts to assess what proportion of a specific donor's GBS funding is under some degree of fiduciary climate-related investment risk.

116 During SPSP formulation and implementation, dialogues between donor and partner entities usually deal with the roles of sector stakeholders in greater depth (their capacities, awareness, partnerships) and lead to agreement on performance assessment frameworks. Therefore, when compared with GBS, sector budget support is more likely to allow for specific CC impacts assessments and design of adaptation measures.

117 Inclusion of adaptation in general budget support mechanisms through policy dialogues with officials in key ministries, such as Planning/Finance (not just the Environment Ministry alone) could raise the attention of partner governments to CC risks, in an equivalent of the Green Diplomacy process.

118 However, to make use of GBS or programme-based approaches to support national or sector, issues to be addressed include ensuring that integration of adaptation policies into poverty reduction strategies and development planning is authentically country-driven, using a participatory approach to policy dialogues that includes non-state actors, and developing assessment frameworks for monitoring and evaluation. For further information on monitoring and evaluation of GBS see various OECD guidance (which could be modified for monitoring and evaluation of CC aspects of general budget support.

3.5 Application of Strategic Environmental Assessment

119 This section briefly discusses the potential application of Strategic Environmental Assessment (SEA) for the integration of climate change during country level programming. An excellent discussion is already available in *Strategic Environmental Assessment and Climate Change: Guidance For Practitioners* (Levett and Therivel, 2007)

120 SEA could identify if there are needs and opportunities for specific interventions that directly confront CC and enable partner responses. These could be focused on support to national meteorological services and research partnerships that plug gaps in the application of weather/climate information to development planning in all MDG areas.

121 Measures could include:

- Improving the availability and quality of climate information (coverage and quality control of climate monitoring data and supporting infrastructure development for weather and climate monitoring)
- Improved quality and resolution of national CC scenarios and impact projections
- Improved methodologies and data for assessing vulnerability to CC (biophysical and socio-economic data)

122 Both mitigation of, and adaptation to, CC should be considered at various stages of the SEA process. SEA and should include at least information of local–level impacts of CC and proposed mitigation and adaptation measures.

123 Consequently, it is possible that SEA could inform the decisions made in the CSP process about taking climate risks into account. This is likely to be in a limited practical way since SEAs are either focussed on a particular productive sector (e.g. energy, tourism, sugar *etc*) or at a policy level where the amount of relevant CC data would be no more than that in a CEP (drafted under a newer ToR). SEAs could also be used as part of policy dialogues to inform GBS discussions. They may also be useful during the next versions of the Poverty Reduction Strategy Papers or during the development of any national CC adaptation strategies or similar high-level documents.

124 During the SEA process, the baseline will need to be established for a range of parameters that could be affected by CC e.g. water resources and quality, biodiversity, soils, health, buildings and infrastructure, and the economy generally.

125 During the objective-setting part of the SEA, the particular plan's impacts could be assessed for:

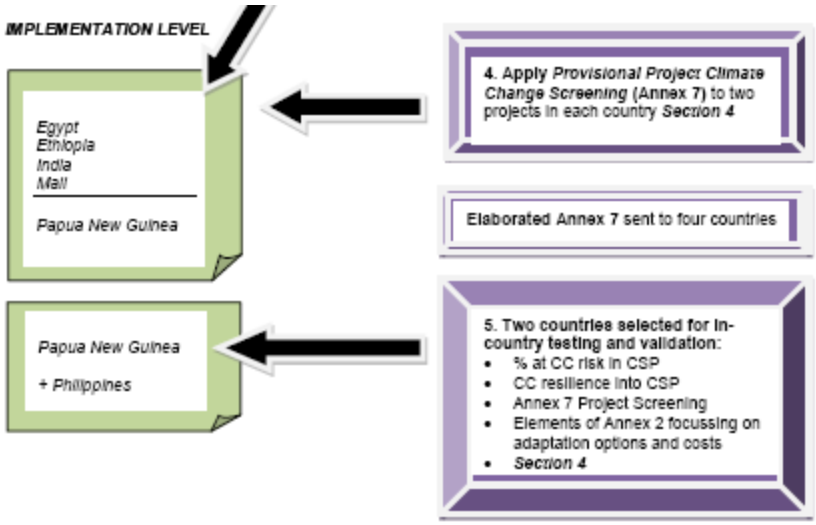
- Reducing greenhouse gas emissions
- Reducing vulnerability to CC (in terms of probability and extent of adverse impacts)
- Optimising the use of the benefits of CC

126 The time horizon for predicting the impacts of plans on CC, and the impact of CC on plans, is longer than for other types of impacts, and may well be beyond the lifetime of the programme. As such, the SEA should particularly consider long–term CC impacts.

127 Mitigation and adaptation measures must be considered where a programme is likely to cause significant impacts on CC, or to increase vulnerability to CC (taking into account likely future CC trends). However, although a programme may do its best to avoid CC impacts, it may not succeed in reducing greenhouse gas emissions or vulnerability to climate change. This is because other factors (e.g. lifestyle choices, political stability and so on) have far more potential to counteract even the most well-intentioned plan or policy as regards climate change.

128 In practice, to date, SEAs have had very little practical influence on actual vulnerability to climate change. With the way SEAs are currently being specified and used this situation is unlikely to change in the near future.

4.0 COUNTRY VISITS AND PROJECT CLIMATE CHANGE RISK SCREENING AND ASSESSMENT



4.1 Country Visits

129 This section outlines the country visit process, provides some practical insights into how the Study Team's purposes were achieved, and findings. Once the countries to visits were selected, the purposes of fieldwork were refined, and activities were defined that would lead to expected results. *Note that the time in the field was used equally for project-level tasks and on strategic climate risk issues for programming at national level.*

130 For the three methods under review; the CSP *Screening and Assessment in Climate Change Risk Evaluation*, the *Project Climate Change Risk Screening* (known as Annex 7 of the EIH) and the more comprehensive *Project Climate Change Risk Assessment* (known as Annex 2) the purpose was to apply an integrated approach that would find out how the configuration of each of these procedures actually matches the practical possibility of obtaining the information that it requires.

131 Detailed country–visit purposes were:

- To gather detailed information on the candidate projects within the two CSPs in countries visited to contribute to ongoing CSP % Portfolio-at-Risk Screening, as a 'reality check' for the method developed during the desk study phase;
- To test which element of the provisional *Project Climate Change Risk Assessment* (Annex 2") remains valid assuming that a method similar to Annex 2 would be applied by consultant teams during project formulation. At the time of writing, this procedure is titled *Comprehensive High Climate Risk Project Assessment*;
- To appraise the *Project Climate Change Risk Screening* procedure (Annex 7) as a "questionnaire" to be applied by Delegation staff at Identification stage, for relevance, efficiency and practicality;
- To identify how resilience might be built into CSPs by making country observations, by reviewing ease of access to climate data, and trying out methods to gather the required information; and,
- To identify the kinds of information that are needed to meet the data requirements of different project and programming processes, and use this to determine the advantages and limitations of the Study Team's and the EC's procedures and methods.

132 Country visits began with discussion with the EC Delegation (DEL) staff who manage the potentially 'climate risky' programmes. This group was regarded as the primary stakeholder for this Study.

Discussions focussed on the processes in which DEL staff needs to handle climate risk information, and how CSP mainstreaming might be generally approached.

133 Following the basic principle of country ownership, it is obvious that the EC cannot mainstream climate risk into a CSP without matching mainstreaming efforts made by country partners. The DEL processes that were examined in the visits were:

- § Assessing proposed initiatives for potentially significant risks;
- § Supporting in-depth climate risk assessment of projects during their formulation;
- § Updating or supporting new CEPs for partner countries, as part of mid-term reviews of CSPs and during future programming cycles;
- § Including sector and regional CC information as a consideration within CSPs, during their preparation, monitoring and evaluation;
- § Preparing ToRs for consultant teams to include climate risk issues during project support or programme development; facilitating their processes, and evaluating their results; and,
- § Designing and implementing climate-resilient budget support.

134 During the country visits involved interviews with members of organisations in the two countries: DEL senior operations and task/sector managers; sector ministry managers; Directors and staff of NGOs (involved in environmental/disaster management, ecosystem conservation and rural development); experts from UN agencies and other donors; NAO staff; University researchers and other research programme leaders; technical advisor consultants; and project coordinators and workers (*Technical Appendix T5*).

135 The Study Team undertook the following activities:

- § Kick-off presentations to DEL staff to discuss issues, identify the most appropriate initiatives to visit, and development of a detailed programme of visits to government and NGOs and presentation of the CSP *Screening and Assessment in Climate Change Risk Evaluation* to DEL Operations Managers and staff to explain how it works;
- § Display of the elements of *Project Climate Change Risk Project Screening* to DEL staff, so as to examine the questions included in Annex 7, and in Annex 2. This identified generic improvements that could be applied to the procedures;
- § Presentation of a candidate contents page for a CEP Climate Risk Section;
- § The availability, relevance and adequacy of climate risk information was appraised, concerning expected CC effects that were relevant to the CSPs, and to the four projects chosen as being under greater climate risk. This was based on CC projections presented in the WB portal, online literature review, combined with field information on expected CC impacts, as well as the sector scripts (as sources of information to identify possible adaptation options);
- § Detailed interviews were conducted with CSP stakeholders, climate information experts and EC/partner project staff to gather Study materials and grasp the diversity of perspectives about country climate challenges and disaster risk management. Discussions with a range of stakeholders attempted to generate a perspective about CC-related information by asking informants an open question: "W*hat do you understand is the agreed view in your country (sector or region) about what significant climate changes could be expected in the medium term (explained as in a frame of "within 10 years")?*

136 For the candidate initiatives (SPSPs and projects) that were selected for appraisal, evidence was discussed so as to be able to answer the four key questions used in the CSP *Screening and Assessment in Climate Change Risk Evaluation. Note that these four questions – based on Klein 2007 - were integrated from the questions used in the Study Team's version of Project Climate Change Risk Project Screening.*

137 Therefore, the work to screen the CSP % Portfolio-at-Risk using the *Screening and Assessment in Climate Change Risk Evaluation* necessarily overlapped with the *Project Climate Change Risk Screening* part of the work. The concept was that some of the uncertainty related to assigning a given project as under some climate risk (or not) in CSP *Screening and Assessment in Climate Change Risk Evaluation* could be resolved, in the country visits, by asking the same four screening questions about the four projects selected for visits in the two countries. This is why the country visits had to use an integrated process that delivered information that could be used for various Study purposes.

4.2 Project Climate Change Risk Screening

138 The ToR calls for the application of a provisional *Project Climate Change Risk Screening* procedure known as Annex 7. This screening procedure is to be applied to two selected ongoing or planned climate sensitive projects in each of the five countries identified as being at risk by the procedure developed in this Study (Egypt, Ethiopia, India, Mali and Papua New Guinea). The general purpose was to assess how well a desk-based review of the CEP, CSP and related NIP or MIP could identify potential CC risk by validating the original conclusions with information gained from the delegations directly.

139 The four key questions used in the revised *Project Climate Change Risk Screening*, and in the CSP *Screening and Assessment in Climate Change Risk Evaluation* were validated. The crucial issue of the "timescale of concern" was handled by developing two distinct questions:

- Firstly, **project effectiveness and impact** is covered by the question "*At the end of the project implementation period, are the projected impacts of climate change, variability or extreme weather likely to affect the delivery of continued project benefits, during the subsequent ten-year period?"*;

- Secondly, **project efficiency** is approached by asking "*During the project lifecycle, is it likely that expected impacts of extreme weather events and climate change, could affect the project's activities, results and outputs?"* Answering the first question is more likely to require climate projections information, while the second question in most cases, simply involves assessing current vulnerability under the effects of greater climate variability (without necessarily implying definitive shifts into new climate regimes). Ten years appears to be a consensus time limit within which some donor responsibility could be argued, for fiduciary-type climate risks; and,

- It is important to note that the **project effectiveness and impact** requires information on the medium-term impacts of CC on the assets and livelihoods of final beneficiaries, while the project **efficiency** question is only about climate-related risks to the project as a time-limited entity.

140 To enable Annex 7 to be applied to the five countries (Egypt, Ethiopia, India, Mali and Papua New Guinea) A *Request for Information* (see *Technical Appendix T 2 B)* derived from Annex 7 was formulated and sent to the EC Delegations in each of the five countries, together with the developed procedure. The questions asked (after Klein 2007) were consistent with the draft climate risk screening questionnaire, and incorporated some specific improvements developed during this Study. In particular, the underlying determinants of risk as defined in the climate risk screening questionnaire were covered: the exposure of the project activities to climate variability and risk; the potential impact of project design on the ability to respond to climate risk; the degree to which project partners already respond to climate risk; and the broader context in which the project activities would be situated (e.g. existing initiatives that could increase/decrease vulnerability *etc*).

141 During the application of the Approach to calculate % Portfolio-at-Risk, certain judgements were made using the CEP, CSP and related NIP or MIP concerning a given initiative described in the CSP. On that basis assumptions were made on the degree of climate risk and how CC or CV might affect that initiative. A validation of the initial assessment was done using the Delegation's knowledge either captured as a result of the *Request for Information* or, in the case of the Philippines and Papua New Guinea, through direct interview and discussions.

142 During the country visits to the Philippines and Papua New Guinea, the Study Team worked with representatives of the two Delegations to complete the information. The draft questionnaire for project's Climate Change Risk Screening has been thoroughly assessed and extensive commentary is provided in *Technical Appendix T 2 A (i)*. The Study Team concluded that, based on the testing of the four questions, the "Annex 7" *Climate Change Risk Screening* would be useful at the end of identification, and then to guide questions to ask during formulation. Despite its usefulness, the procedure could be significantly improved, for instance using the country-tested questions, and formulating the questions in a clearer manner. A further finding is that some of the original questions need to be split into constituent parts to more accurately capture the situation. Following further pilot testing, Delegations could feasibly apply it during the project cycle. A revised version, taking into account the assessment and commentary, is offered in *T. 2 A (ii) Project Level Screening – Annex 7 (revised version)*

Country Visited: Philippines

143 The principal difficulty encountered during the Philippines Country Visit was that there was no project *per se* on which to carry out the validation. The primary aid modality was budget support which is not conducive to specific project activity description. However, in discussion with the Delegation two initiatives were selected as "proxies" for projects since there was some element of definition about the intervention and what the funds may be used for.

144 The two initiatives selected were:

- The Mindanao Trust Fund
- The Health Sector Health Sector Policy Support Programme - Phase I

145 During the % Portfolio-at-Risk evaluation the Philippines' portfolio was not identified as at-risk using the developed Approach. This was validated as correct (see *Technical Appendices T 2 C and D*).

146 A deeper validation was undertaken for the Health Sector Support Programme (Phase I) which had project-like characteristics (see *Technical Appendices T 2 E*). The outcome further supported the original assumption, using the developed Approach, that there was little at CC risk.

Country Visited: Papua New Guinea

147 There were two initiatives to be examined, of which one was an ongoing project (although of 9th EDF provenance and therefore nominally outside the scope of the assignment) and thus could be properly tested.

148 These two initiatives were:

- Rural Economic Development
- Rural Water Supply and Sanitation

149 During the % Portfolio-at-Risk evaluation the Papua New Guinea portfolio was identified as at risk using the developed Portfolio Screening Approach. The Rural Economic Development desk-based evaluation was subsequently validated and found to be too conservative. Two of the "*Yes*" attributes became "*No*" and two other "*Yes*" attributes were probably "*No*" but remained as "*Yes*" as a precautionary measure.

KEY:
Yes - indicates need to assess this aspect of the programme/project as it is likely to pose some risk
No - indicates confidence that this aspect is resilient to CC effects
Min - indicates more info is needed.

YES or NO in capitals indicates overall assessment under expert judgement with current data

OPERATING IN SECTOR VULNERABLE TO:
- Climate Variability (CV)
- Extreme Weather (EW)
- Future Change (FC)

Rural Economic Development

Purpose: to improve livelihoods of rural populations by enhancing integration of rural communities into wider markets.

Improvement of local development planning with stakeholders and Infrastructure upgrading.

Improved access to market and economic opportunity information in rural areas

Technical support to

income-generating

Yes

REVISED BASED ON INTERV

YES (precautionary)

JUSTIFICATION

CV, EW and FC potentially can significantly affect rural development.

EC interventions intend to stimulate rural economic development through grants that support local government organisations for example to build infrastructure, such as bridges in Highlands and roads in Lowlands. Likely that highlands and lowlands will be subject to events triggered or related to CC, though climate models do not provide clear

signals as to the direction and

The first question asks if the intervention is in a sector vulnerable to CV, EW or FC. *Rural Economic Development* is considered to be a likely candidate for susceptibility to CC effects and so attracts a "Yes".

Depending exactly how the intervention is formulated will determine whether or not this catch-all susceptibility will, in reality, occur.

So, the desk-study "Yes" remains a "Yes" but really only as a precautionary attribute. Appropriately formulated interventions could render a "No".

The second question (CC *etc*) affecting planned deliverables beyond the nominal intervention life attracts the same answer and reasons

NOTE: *View T 2 F Appendix for full screen table*

For the next three questions (below) the two "YES" answers during the desk-based evaluation were subsequently considered to be "No" due to appropriate safeguards being introduced during Formulation.

Note that the versions of the four questions applied during country visits have been modified, after country visits, and now the CSP *Screening and Assessment in Climate Change Risk Evaluation in addition to the proposed Project Climate Change Risk Screening procedure use revised formulations.*

PROJECT SCREENING		
PROJECT EFFECTIVENESS UNDER CLIMATE RISK	**PROJECT CAUSING ADVERSE SUSTAINABILITY**	**PROJECT CAUSING POSITIVE SUSTAINABILITY**
Effects of climate change impacts on project partners, inputs, necessary assets and intended beneficiaries	**Potential harm produced by the project that could increase local vulnerabilities**	**Benefits for vulnerability reduction**
Is realised climate risk likely to directly/indirectly worsen the ability of project partners and intended beneficiaries to participate?	Is there potential for the project to increase local vulnerabilities of final beneficiaries, targeted communities and systems?	What potential is there for project outcomes to improve vulnerabilities of livelihoods and assets?
Yes	No	Yes
JMENTATION		
NO	NO	NO
The ability of project partners and/or beneficiaries to participate would be due to physical changes due to CC e.g. landslides, flooding or droughts. Landslides could impede to travel, and this is already a significant issue that affects current commerce. Droughts and flooding could reduce farm yields and rural incomes. Hazard mapping at District level would help ensure	Building infrastructure and supporting actions in agriculture, fisheries and forestry are designed to reduce vulnerability. It is therefore unlikely that any elements of this project would lead to mal-adaptation that increases local vulnerability.	Project seeks to build the resilience of rural livelihoods by building infrastructure and by supporting actions in agriculture, fisheries and forestry. The better integration of communities with markets is likely to lead to greater ability of rural communities to respond to opportunities opened by climate change, such as the ability to grow different crops due to the warming of what have been cool elevations.

The "No" was confirmed as "No" during the country visit.

150 The *Rural Water Supply and Sanitation* was not subject to validation *per se* since it was a 9th EDF intervention. It was used merely because it was a formulated project which could be used to test the Approach (see *Technical Appendices T 2 G and H*). Additional information on project locations and scheme types may be found in *Technical Appendix 4 A*.

Higher-Risk CSP examined: Egypt

151 Technical Appendix (T 2 I) indicates that CSP intentions have changed considerably following receipt of information from the Delegation. Various naming and allocations had changed since the publication of the CSP. The revisions to the assumptions made during the evaluation of the CSP make a significant, material difference to the original findings regarding the % Portfolio-at-Risk of CC. The main addition to what was considered to be at-risk by the Delegation was the *Education Sector Policy Support Programme*. This programme aims at strengthening access, quality and gender equality in the education sector, and builds on important reforms already introduced under the €100 million Education Enhancement Programme funded by the Commission which ran until 2006.

152 It is argued by the Delegation that extreme events (such as droughts) may decrease school attendance (depends on specific location) and in the longer term sea level rise (SLR) may endanger school infrastructures in the Nile Delta (though recognising, correctly, that this is likely to by outside programme lifetime. There are many aspects to Egyptian life that decrease school attendance and extreme events such as droughts or persistent rain would, indeed, figure in this list. There are various mitigations which could be expected to be built into programme to offset this possibility.

153 Any programme focussing on strengthening access would also build in mitigation concerning potential SLR, if thought to be a particular future problem for the given location. To consider that a € 120 M programme is thus at-risk could seem to be overly cautious. Clearer understanding of how CC, CV, extreme weather *etc* would really affect a portfolio would give a clear picture of true at-risk content. See also Table 2.

Higher-Risk CSP examined: Ethiopia

154 Although no information was received from relevant Delegation to verify the findings, the Study indicated four initiatives that could be at some CC risk: two simply because, in general, rural development programmes are likely to be affected by CC impacts; others because education and health infrastructure are likely to be under medium term risks from CC; and one entitled Environmental Cultural and Biological Heritage because biodiversity resources programmes may come under climate impacts in the medium term. See also Table 2.

Higher-Risk CSP examined: India

155 Technical Appendix (T 2 J) indicates some slight revisions following receipt of information from the relevant Delegation. Various naming and allocations had changed since the publication of the CSP. The revisions to the assumptions made during the evaluation of the CSP "... *which overall is correct...*) did not make a significant, material difference to the original findings regarding the % Portfolio-at-Risk of climate change. See also Table 2.

Higher-Risk CSP examined: Mali

156 Although no information was received from relevant Delegation to verify the findings, the Study indicated three initiatives that could be at some CC risk simply because, in general terms, rural development and programmes are likely to be affected by CC impacts. See also Table 2.

Summary: At-Risk CSP Initiatives and Sectors

157 The analysis of the CSPs and the projects/support they specify is presented in Table 4. This carries text across from CSP *Screening and Assessment in Climate Change Risk Evaluation* to supply, for the countries with higher levels of risk, summarised findings whether projects are deemed at risk from climate change and why.

158 The Summary clearly shows that the inconsistent use of a common sector terminology makes it difficult to draw overall conclusions about which sectoral initiatives could generally be considered at risk. The Summary tentatively shows a predominance of vulnerable rural development and transport projects where impacts are potentially direct and significant. Natural resource-based initiatives such as forestry and water are deemed at-risk because of direct climate impacts on rainfall or ecosystem health.

159 Education support is only deemed at risk because of risk to buildings and infrastructure, while health support additionally includes the potential for spreading disease and harm from extreme weather events becoming significant future concerns for target populations.

TABLE 5 Summaries of Country Initiatives At-Risk

COUNTRY	CSP initiatives at some climate risk	Text description from CSP or IP	Reasoning why Initiatives deemed under some climate risk
Egypt	**Support to Rural Development**	Technical assistance and capacity building to the Government of Egypt to support the implementation of a national pilot programme to develop incentive-based rural development strategy. Structured around four strategic pillars: 1) Agriculture competitiveness; 2) Environment and sound land management; 3) Rural quality of life and economic diversification; and 4) Building local institutional capacity. Targets small and marginal farmers in old lands and aims at introducing good agricultural practices, water saving techniques, environmentally friendly farming, local economic growth, development of a strong agri-business sector, and job creation through economic diversification.	Rural areas in Egypt will be highly affected by CC consequences (sea level rise, higher temperatures, less water) as well as CV and extreme weather events. The assets and livelihoods of communities settled on river flood plains and in the Nile Delta are under very high risk of climate impacts. Farmers will be deeply affected if an extreme event occurs during the initiative's implementation, as with droughts for instance. However, the initiative is not likely to worsen risks; rather it is likely to be planned to reduce vulnerabilities by promoting innovative sustainable practices. Potential does exist to add in adaptation capacity and resilience building elements.
	Targeted support for sector reforms-Transport	Support in the fields of transport (railway restructuring, maritime safety and security, aviation market liberalisation and its safety and security, Preparation of legislation and administrative capacity-building, including development of regulatory bodies and regulatory convergence with Mediterranean partners and the EU)), promotion of energy efficiency and renewable energy sources, the environment (legislative reform, administrative capacity-building at central and local levels and infrastructure projects) and the information society (strengthening of regulatory bodies and capacity-building of public bodies).	CC impacts on infrastructure are expected within quite short time frames, though the final beneficiaries are not - by their nature - sensitive to climate impacts. Promotion of energy efficiency and new and renewable energy sources is likely to supply adaptation/mitigation synergies if the initiative is assessed in-depth. Building capacities and improving infrastructure design standards is likely to reduce the climate risk levels of new transport linkages and assets that are built. Potential does exist to add in adaptation capacity and resilience building elements within the broad cross-sector programme.
	Education Sector Policy Support Programme	Strengthens access, quality and gender equality in the education sector, and builds on important reforms already introduced under the €100 million Education Enhancement Programme funded by the Commission ~ ran until 2006.	If extreme events (droughts, flooding, and water-supply loss) do occur during the initiative's implementation, these may decrease school attendance. Longer term, sea level rise may endanger school infrastructures in the Nile Delta.
	HSPSP II-Health Sector Policy Support Programme II	Support to the health sector founded on the principles of human equity and social stability. In addition, EU support could include the fight against communicable and non-communicable diseases, in particular through facilitating the implementation of international treaties in the area of public health. 125 Family Health Units in primarily rural areas were constructed/ rehabilitated and equipped with medical equipment. Medical given s training. A Family Health Fund (FHF) was established to provide a high quality primary health services. A further €120 million to support health sector reform is planned in 2009.	This sector-level support has sufficient components located in exposed rural areas (health clinics) that may be affected by climate impacts: decrease of freshwater resources, of the quality of the water resources and of crop production if extreme weather as drought occurs. The programme has many beneficiaries located in exposed rural areas who use health clinics.
	ISWP (Improved water and waste water services programme)	IWSP supports the performance of the Affiliate Companies (ACs) - of the Egyptian Holding Company for Drinking Water and Wastewater. Activities are 1. Investment to improve the quantity, quality and efficiency of the water supply and particularly wastewater services in the four governorates Sharkia, Gharbia, Damietta and Beheira in the Nile Delta region. 4 million inhabitants will benefit from this action through the implementation of civil works. 2. Institutional strengthening.	The Nile Delta region in Egypt (the target of this programme) will be highly affected by CC (sea level rise, higher temperatures, less water): thus, this could easily affect the results of this programme. The project will improve water and wastewater institutions and agencies which are important components of building adaptation capacity.

COUNTRY	CSP initiatives at some climate risk	Text description from CSP or IP	Reasoning why Initiatives deemed under some climate risk
Ethiopia	**Support to the productive safety nets programme of Ethiopia**	PSNP is multi-donor funded programme extending support to more than 10% of the Ethiopian population to provide predictable transfers to the food insecure population in order to reduce the food gap, to prevent further asset depletion at the household level and to create/preserve assets at the community level. It works on cash first transfer as opposed to a food aid provision. Core activities carried out to date are construction / rehabilitation of rural roads, and soil and water conservation. Environmental and Social Management Frameworks are to be agreed upon by Government and donors to ensure that public works are not negatively impacting the environment. The PSNP also has potential to evolve into a comprehensive social protection strategy in the longer term.	Typically rural development and infrastructure programmes are likely to be affected by CC impacts. However, the soil and water conservation activities are almost certainly designed to reduce disaster and climate risk vulnerabilities in rural areas. Rural feeder road rehabilitation is highly likely to improve social and economic resilience, for example through offering opportunities for rural business diversification. Programme is likely to enhance the sustainability of the livelihoods of beneficiaries, as this programme is planned with the central goal of reducing vulnerabilities and improving social safety nets and the connectedness of target communities within wider transport and commercial relations.
	Participatory forest management PFM Ethiopia	Falls under Management of natural resources Specifically the 3rd measure: to promote conservation, use and national and international valorisation of Ethiopian's (agro)-biodiversity in all parts of the country.	Typically forestry and biodiversity/rural development programmes are likely to be affected by CC impacts. However, these impacts will manifest on uncertain timescales, but eventually agro and biodiversity may be severely impacted and CC impacts may affect forest integrity. This initiative would likely have CC issues under careful monitoring.
	Second Sector Policy Support Programme in support of Ethiopia's Road Sector Dev. Programme	Two intervention areas: (i) Infrastructure development aimed at strengthening both intra-regional and interconnection with the regional market of the Horn of Africa; and (i) Capacity building for Private Sector Development and Trade set in the EC-ESA Economic Partnership Agreement (EPA).	Infrastructure under Intervention Area 1 is likely to be under medium term risks from climate change.
	Protection Of Basic Services	Not clear how this is currently programmed as it may go to GBS	Typically rural development programmes are likely to be affected by CC impacts.
	Environmental Cultural and Biological Heritage	Assists Government in developing a supportive policy environment, institutional structure and promotion services through the Ethiopian Ministry of Culture and Tourism and building regional bodies responsible for restoring and preserving cultural heritage sites, as well as to restore and conserve National Parks and wildlife populations.	As above, the biodiversity resources programmed for protection may come under climate impacts in the medium term.
Guyana	**Development of land use planning**	Aim is to unblock one of the bureaucratic obstacles to private sector investments, where domestic or FDI, by developing a master plan of land-use for different purposes (urban planning, transport, e.g. Linden-Lethem Road, environmental protection, etc) and to integrate the work done by DFID and IDB in some sub sectors of land register (mainly for housing purposes) into a comprehensive land-use register. The register would also help the commercial court in the area of collateral management	Much of Guyana's productive coastal areas is vulnerable to flooding and housing assets may be under risk.
	Sea Defence Sector Budget Support	This project is a European Development Fund contribution within a multi-donor programme to rehabilitate sea defences. The other donors are the IDB, W.B., and CDB The EDF contribution will finance mainly the rehabilitation of 6 to 7 km in Regions 2 and 3 (east and west of Essequibo River).	In some time periods the infrastructure will be tested to limits of design tolerance, after infrastructure creation
India	**Health Sector Support Programme India**	Objective is to support the Government of India in implementing the RCH2/NRHM programme, to strengthen the system in its decentralisation efforts and assist institutions at different levels to participate fully in the proposed bottom-up approach. Specific objectives in the Health and Family Welfare programme are: strengthening decentralisation efforts at centre, state and district level; strengthen institutions at different levels to make them more accountable and to provide quality service delivery; increase community participation.	Components located in exposed rural areas (health clinics) might be exposed to some climate impacts after implementation. However, real levels of exposure for this sector-level support will depend on if components like health clinics are located in exposed rural areas that could suffer climate impacts during implementation. There is potential for the health burden requiring attention increases due to extreme events or uncontrolled disease spread.

COUNTRY	CSP initiatives at some climate risk	Text description from CSP or IP	Reasoning why Initiatives deemed under some climate risk
Mali	**Desanclavement du nord delta du Niger,appui sect. Tranports**	Supports the PRSP with regard to the development of infrastructure and the productive sector and the creation of jobs. Concentrates on the central area and north of Mali. The major interventions will relate to the infrastructure necessary for the development of the economic potential of these areas. The local communities will play a central part in the identification of the programmes to be carried out.	Typically, rural development programmes are likely to be affected by CC impacts. This region has a historically very high vulnerability to famine. However, the initiatives are likely to be planned to reduce vulnerabilities.
	Contrat omd pour le mali - ppab 2	Focuses on key elements of poverty reduction; social development and transportation	As a typical rural development initiative this could be affected by CC impacts.
Papua New Guinea	**Rural Economic Development**	Enhance access to and integration of rural communities into wider markets: Improvement of local development planning with stakeholder - Upgrading of infrastructure to widen access to economy in the rural world Improvement of access to market and economic opportunity information in rural areas Support to income-generating activities in agriculture, fisheries and forestry. Purpose: to improve livelihoods of rural populations by enhancing integration of rural communities into wider markets. Improvement of local development planning with stakeholders and Infrastructure upgrading. Improved access to market and economic opportunity information in rural areas. Technical support to income-generating activities in agriculture, fisheries and forestry. Strengthening of rural cooperatives systems and of the value added chain in marketing, such as development of local processing facilities to boost benefits for small towns.	The ability of partners and/or beneficiaries to participate would be due to physical changes due to CC e.g. landslides, flooding or droughts. Landslides could impede to travel, and this is already a significant issue that affects current commerce. Droughts and flooding could reduce farm yields and rural incomes. Infrastructure is under potential risk in fragile highland regions. Real exposure depends on standards and siting, design and construction control of the infrastructure. Agriculture, fisheries and forests are nominally exposed to CC but the risk itself depends on the nature of the interventions. Assumption s are that District level planners are able to understand the importance of disaster risk mitigation and how CC could affect settlement patterns, human health and opportunities for crops and the sustainability of livelihoods activities. In-depth training in DRR and CRM is likely to provide significant benefits in terms of problem analysis in grant applications and climate/disaster risk management during subsequent initiative implementation. Hazard mapping at District level would help ensure that investments were located in less exposed settings. Farm diversification, increased assets and improved local processing will mean that the livelihoods of beneficiaries become more resilient. The better integration of communities with markets is likely to lead to greater ability of rural communities to respond to opportunities opened by climate change, such as the ability to grow different crops due to the warming of what have been cool elevations.
Swaziland	**Human Development (Health and Education Sectors)**	Capacity building to ensure more effective coordination, planning and management in the health and education sectors, particularly for human resources. Improvement of employment and training policies for health staff. Improvement of equitable access to health and education services and facilities. Reinforcement of the primary health care system to ensure access for all through rehabilitation of rural clinics, including basic laboratory services and the supply of essential pharmaceutical products and materials.	Components located in exposed rural areas such as health clinics) might be exposed to some climate impacts after implementation. Health impacts due to CC and disasters depend on details of the project beneficiaries and exposures of related assets.
	Water supply, sanitation, irrigation	Focussed on rural areas are where the need for safe water supply is most dramatic. The activities will focus on infrastructure rather than on policy development and capacity building. Will extend irrigation facilities to be planted with sugar cane, and with crops aiming to increase food security in the Country.	Water supply and sanitations components that are located in exposed rural areas are highly likely to be exposed to some climate impacts during and after project implementation. Again depends on details of the project beneficiaries and exposures of related assets. Irrigation and the introduction of new crops are activities that are sensitive to climate change.

4.3 Insights and Findings from the Country-Visit Integrated Process

160 Likely **medium-term climate change** trends and impacts for Philippines and PNG were discussed with informants. While not a robust survey of understandings, successively asking similar guide questions of many informants showed that, for the Philippines at least, a reasonably consistent picture emerged about expected climate change. The outline of the main impacts is similar for PNG as well. In the next ten years or so, CC is expected to largely manifest in considerable worsening of precipitation-related shocks, particularly land-slides, droughts, and flash and surface floods.

161 Longer-term threats from CC will come from **sea-level rise** and increasing temperature. The former could have dramatic impacts on coastal communities and fisheries, particularly on the extremely long Philippines coastline. Manila City is dramatically vulnerable to sea surges and rise. Sea level rise will generate society-wide negative impacts since it will force atoll and coastal communities to relocate inland (if they have the option open to them) with extremely significant costs to the sustainability of their livelihoods, and exacerbation of inland land-use pressures. This has already happened to communities that used to live on PNG's Carteret Islands, now the first island community in the world to undergo an organised relocation, in response to island loss due to SLR and land subsidence, to other PNG territory.

162 Long-term **precipitation changes** are poorly-projected, but increased severities of droughts are likely in the drier regions of both countries. In the Philippines, most respondents believed that high-intensity typhoons would increase frequency and agreed that these would track further east across the archipelago, as well as further south into previously-little affected Mindanao. Major anomalies are noted in rainfall patterns across central and southern regions. Events such as super-typhoon Durian in 2006 cause concern as these are part of a trend of larger storms tracking further south into previously low typhoon regions.

163 PNG respondents could only agree that today the **typical behaviour of rainfall and its patterns** across the seasons and land areas was increasingly severely disrupted. Farmers are now uncertain as to what crops to plant when, given that dry seasons were shortening and rainfall events were far heavier than expected by custom. Advice is being given by the National Agricultural Research Institute

164 **Higher temperatures** seeming to cause greater stress on crops, water supplies and human communities' health. Temperature changes will reduce yields and agricultural production, but would also enable disease vectors to spread, which is likely to become a major health issue with malaria in PNG. Given that altitude is a key determinant of livelihoods, PNG informants had a robust understanding about the effects of temperature increases on climate conditions across elevation bands. Malaria spread, due to CC as well as increased human movement under better road networks, was stated alongside sea level rise as one of the two principle climate risks facing PNG.

165 **Shifting agro-climates, life zones and disease ranges**. A clear consensus could be gathered that warming across seasons was making 'cool areas' warmer, so that organisms were reacting, such that malaria was spreading upwards into the highlands, lowland fruit trees (mango, cashew) could produce crops at higher elevations, and cool zone timber species (*Araucaria sp*) were now not seeding reliably, when the seed stands of trees were located in now-hotter lower elevations. Evidence is accumulating that for both Philippines and PNG, temperature increases across the mountainous topography will reliably translate into considerable ecosystem/species impacts. As CC pushes crop elevation bands and species climate envelopes upwards into higher elevations, this will create considerable difficulties, due to the already very high population densities in the PNG highlands, and due to the fact that most higher elevation sites that could be agriculturally productive have other values (watershed, biodiversity). Very steep and difficult topography would anyway severely limit agricultural choices, and the end consequence in several decades would be the loss of the option to grow temperate fruit and vegetables. Set in the context of 3 – 5% annual population increase, within 50 years population levels will also dramatically overburden the use of available resources.

166 **Awareness** about possible CC impacts is good across a range of stakeholders in Philippines but less so in PNG, but there appears to be much confusion about what CC really is, when compared with natural climate shocks and cycles, and environmental problems caused by unsustainable land use management practices. For PNG the spread of understandings about expected CC was far more restricted to specialised practitioners, perhaps reflecting the far greater data-poverty of PNG compared with Philippines, as well as the lack of agreement in downscaled regional models, particularly concerning future rainfall averages by province. Poor communication of climate issues in PNG contributes to this,

while in highly-literate and educated Philippine society, the Study Team judged this to be much less a concern.

167 There is as yet little awareness of the likely effects of CC on the poor and on **poverty reduction**. Knowledge of what constitutes effective adaptation strategies and actions is generally weak in PNG, and moderate in the Philippines.

168 **Scientific information** about CC impacts is available from a few specialised university departments in Port Moresby and Manila. Knowledge, however, is patchy, distributed across a number of agencies, is largely restricted to CC scenarios, and does not include much on sensitivity, exposure and adaptive capacity.

169 **Limited hazard mapping.** In the Philippines, some excellent research work is in progress by the NGO Klima (based in Manila Observatory at the Manila University) to generate multiple hazards maps based on disaster data, geological and topographic information, and climate projections. This has led to successful work with Habitat International on the siting of new communities, given that problems occur with overlapping settlement sites when drainage and road siting are unplanned and create new risks. Klima mapping integrates multiple hazards, such as when earth tremors combine with heavy water runoff on deforested slopes. Flood-drought stressors are being mapped both across (i) regions with geomorphologic sensitivity due to fault lines and (ii) areas on volcanic slopes where lahar (ash and mud) slides are a risk. This information, once made available for spatial planning, would meet concerns, such as when schools are sited on bottom slopes in settings where landslides could occur.

170 Lack of robust top-down **model-based climate information** is a serious bottleneck affecting CSP stakeholders, meaning that any national consensus on expected future change must be identified and its development supported. In the short-term, it is unlikely that robust scenario/probability-based regional and sector impacts projections will become commonly available, that can then be used as decision-making input for formulation of CSP initiatives.

171 Differences of opinion and approach to **mainstreaming climate adaptation** in development are evident. The essential elements of an effective and coordinated government response are developing far better in the Philippines than in PNG. However, in both cases, a bottom-up approach to integrating CC into development (by focussed efforts to make poverty reduction and sector programmes climate resilient) is less understood and favoured than the vertical sectoral push from the top, as currently promoted by multiple climate change units and committees in Philippines and a Climate Change Office in PNG. The relative merits of these 'bottom-up' and 'top-down' approaches are not clear, and the implications for institutional responses and adaptation policies are largely unexplored. In the PNG case, matters lag behind the Philippines, because the PNG CC Office is still focused primarily on mitigation-based income earning opportunities through forestry and the carbon trade.

172 **Vulnerability-based information** is more accessible, but poor integration of the climate risk and disaster management communities results in weak evidence bases for project formulators. Adaptation to current weather stresses and disasters, and to today's climate variability, remains the better option for approaching the issues and impacts that need to be faced on longer time-scales.

173 **Adaptation to current weather stresses and disasters**, and to today's climate variability, remains the better option for approaching the issues and impacts that need to be faced on longer time-scales.

174 The year 2009 is a major year for CC adaptation, and the vast majority of developing countries are preparing their **Second (or later) National Communications**. This offers an opportunity for CSP programming. The organisations involved have formed temporary groupings, to prepare their key findings about impacts and vulnerability for international scrutiny. Environment Focal Points based in Delegations in all high-risk countries would benefit if they identified the actors writing the National Communications, and requested participation as observers in the National Communications development process.

4.4 Project Climate Change Risk Assessment

175 The ToR calls for those projects identified as climate sensitive, to be general assessed based on the "*Provisional Climate Change Assessment*" procedure (known as Annex 2). The purpose of the procedure was to provide information on possible adaptation options and their costs. Although initially provided, Annex 2 was withdrawn just prior to the country visits.

176 Given the current state of knowledge, it is difficult to clearly define the boundaries of, and methodologies for, the in-depth climate risk assessment of projects. The uncertainty surrounding CC projections, in particular at the local level, is such that emphasis is often given to the use of historical data more than climate projections. This is reasonable given that data scarcity is frequently a major limitation for in-depth risk assessments. This however implies that the rationale and designs of adaptation options would be overly-based on vulnerability considerations, rather than accounting for scenarios of future impacts from climate stimuli. Also, there are concerns how in-depth assessments could require significant capacities from consultant teams involved in project formulation, and the burden that this may impose on EC Delegation task managers who are required to formulate terms of reference, assess the outputs of the assessment, and steer the formulation process.

177 Given that the latter issue would also apply to the modest days of contact time during the country visits of this Study, it was suggested that the Study should assess how climate change projections taken from the WB portal could be combined with information on expected climate change impacts. Then the proposal was that based on site/project descriptions, it might be possible to suggest possible adaptation options, assuming that the projects were at the PCM stage of formulation. However the Study Team had insufficient in-country contact time to thoroughly assess the data limitations and carry out the interviews and literature reviews that were needed.

178 The draft Annex 2 procedure establishes that the report should supply a range of information types and deliver the following results: (I) Review of relevant national or sub-regional studies on the implications of climate change including proposed technical, policy and institutional responses; (II) Overview of key factors and trends, related to climate change, influencing the country's development and stability; (III) Review of relevant existing information on efforts to address climate change issues and capacity to adapt; and, (IV) Assessment of information on expected climate change effects relevant to the project.

179 Development research literature assesses this balance, and in overall suggests that while top-down exposure/hazard information sets the context, it is the local vulnerability-based information that is key to decisions about what to do with scarce resources to increase community/sector resilience. The integration of robust understandings of why groups locally are vulnerable to specific hazards, and 'higher-level' science-based projections, is fundamental to proposals for adaptation measures.

180 The role of the in-depth assessment is seen as intrinsic to the system for climate risk management that the EC is in the process of establishing. While there are considerable technical difficulties in using projections of climate variables and associated impacts, this should not get in the way of inclusion of this procedure in the EIH. This could be vital for larger projects, for which this specific input would help to develop the project's approach to climate risk. Given the likely evolution of increasingly significant climate impacts, the requirement for in-depth assessments will probably grow, as Screenings detect more projects needing analysis. Once the Screening procedure is rolled out into use by Delegations, the Comprehensive Assessment can be piloted and then improved iteratively. By its nature, given the limited development of this kind of method even by adaptation practitioners, it will continue to include tentative elements even once incorporated within the EIH.

181 The Terms of Reference for a Comprehensive Assessment of High-Risk Climate Change Project was provided towards the end of the Study and is commented on briefly in Technical Appendix T 7 *ToR for the Comprehensive Assessment of the High-Risk Climate Change Project*.

182 Concerning what approaches could enable use of that information in the context of a formulation study, the answers are clear. Obtaining the ambitious information required for in-depth assessment (climate-change factors/trends influencing the country's stability; efforts to address CV issues and capacity to adapt; studies on implications of CV including technical, policy and institutional responses; expected CC effects relevant to the project) is likely to require significant interaction with in-country informants. In-depth assessments for specific projects are not the best forum for assembling generic country and sector impacts/responses information, rather the CEP should carry as much of this generic content, certainly as possible for the focal sectors selected, when included as a well-formulated section to the CEP (see Section 4).

183 Consultant teams who asked to supply climate advice during project formulation need to include individuals who are able to robustly balance qualitative local information with the information available from the science community. Here a critical provider of actual country-relevant climate information is the constituency of organisations that are currently grouped around preparation of UNFCCC Second National Communications. These information providers (NGOs, Ministries, academics and international researchers) are required to contribute to assessments of the state of CV/impacts/adaptation issues nationally, sectorally and locally. As a resource, this *ad hoc* collection of experts assembled to prepare 2nd UNFCCC Communications could be targeted deliberately by EC Delegation staff and their constituent members as the best nationally relevant grouping who could be engaged in preparing the details of the CC annex of future versions of the CEP.

4.5 Application of Environmental Impact Assessment

184 It is often assumed that the application of EIAs could be mirrored in some way in the context of Project Level screening particularly where the potential for integration of CC is an outcome. The EC Directive of 27 June 1985 on the assessment of the effects of certain public and private projects on the environment (85/337/EEC) ANNEX III states: *3. A description of the aspects of the environment likely to be significantly affected by the proposed project, including, in particular ...climatic factors,... and the inter-relationship between the above factors*.

185 The purpose of an EIA is to deal with the environmentally-related risks that could affect a project. The fundamental role of EIA is to make sure that the impacts of a proposed project on natural assets (such as healthy ecosystems and their provision of environmental services) and social assets are evaluated for acceptability and, if a project is approved, are adequately minimised. Of course, the direction of the 'impacts arrow' is <u>from</u> the project's (activities, inputs, outputs, results) <u>onto</u> the local environment of that project. An example would be the diverse issues that would arise when assessing a forest plantations and pulp/paper mill for impacts on old growth forests and water quality. The impact identification methodologies used in an EIA must deliver *'identification and assessment of the potential significant environmental impacts of the project in its different alternatives'.* So EIAs are largely designed to assess the potentially negative outcomes on environmental quality resulting from the construction, implementation and resources requirements of facilities.

186 Climate change is different. Only the mitigation aspect of human industry falls within the central concept of EIAs. This is the case even given the difficult central problem of mitigation: during due diligence, how to internalise the externalities within its cost-benefit calculation – when these effects are diffusely spread into future time periods and across distant locations - of a proposed investment? As climate change is globally-mediated, carbon emissions alone do NOT have local climate effects, completely unlike say, chemical or radioactive contaminants.

187 Climate change impacts and adaptation to them are not only conceptually different to mitigation; they also rely logically on an 'impacts arrow' running <u>from</u> the environment <u>onto</u> the facilities, ecosystems, settlements, infrastructure necessary for sustained operation of activities in vulnerable regions and sectors. Uncertainty in analyses is about the direction of change in climate variables; how drastic and stable the eventual shifts from current 'stable climates' will be on various times scales; and the implications for ecosystems and human settlements and livelihoods. In sum, as an element of the physical environment, how much more will the risks it poses, increase?

188 EIA is usually limited to site or geographic boundaries: weather and climate do not respect political or geographic boundaries, CC impacts are not site-specific; they may be acute at times but generally are chronic. EIA is better at addressing the 'acute' impacts of development, as opposed to 'chronic' impacts of climate change. CC effects may take several years to materialise (health impacts of extreme weather and climate events, drier agricultural soils and so on). Finally, the usual objective of EIA is focussed on a specific infrastructure and in specific locations which is hard to associate with CC cumulative regional or national impacts.

189 The option of increasing the coverage of climate risk issues within the ToRs for EIAs was examined. Comments were required on the *Terms of Reference for an Environmental Impact Assessment* (Annex 8 of the EIH). Following discussion within the EC, it is desired to:

- To make EIAs consistent with or reinforce the approaches laid out in the drafts of Annex 7 for climate risk screening of proposed projects (this refers to the draft prepared by this Study Team ~ see *T. 2 A (ii) Project Level Screening – Annex 7 [revised version])*; and/or,
- To enable the procedure of EIA to take the place of in-depth or comprehensive assessment of high-risk projects.

The first objective is considered valid but not the second.

190 Therefore the basic action in the Tor (T 6; Para 4. 2. 1 a) becomes irrelevant for CC adaptation, when baseline studies are required for identified '*indicators (e.g. Environmental Quality Indices) ...for all key environmental variables to be studied and their state established as a baseline for impact identification and future monitoring'*.

191 Related arguments are made in the main text of this report that CC impact/adaptation, while well-located institutionally as an environmental integration issue, logic dictates that we accept the Hedger *et al* (2009) statement – that '*framing climate change purely as an environmental issue may prove to be a ...fundamental obstacle for effective mainstreaming ..as this obscures the direct relevance of climate change for economic growth and development planning, i.e. the strategic changes needed in energy policy and...sectoral policies...and the risks included in the impacts of climate change for poverty alleviation'.* This implies that adaptation funding, whether through project or budget support, certainly requires an adaptation-specific screening + assessment + formulation framework.

192 While this may be scientifically-challenging and requires innovation, this Study finds that the role of the in-depth comprehensive assessment is intrinsic to the system for climate risk management that the EC is in the process of establishing. Just as EIAs are required for projects screened as high-risk, so *a specific dedicated procedure for in-depth climate risks assessments* must be available within the EIH toolbox. While there are acknowledged and considerable technical difficulties in generating a robust and comprehensive assessment method, these should not prevent its inclusion in the EIH, as a system without this would certainly risk reducing the relevance of the climate risk screening procedure.

193 Applying a comprehensive and specific assessment method will be vital for many larger projects, for which these studies would develop appropriate approaches to climate risk. Given the certainty of increasingly significant climate impacts, the requirement for in-depth assessments will grow, as screenings detect more projects needing climate analysis.

194 By its nature, given the limited development to date of project assessment tools by specialist adaptation practitioners, the comprehensive/in-depth assessment will continue to include tentative elements, even once incorporated within the EIH. Once the screening procedure is rolled out into use by Delegations, the Comprehensive Assessment could be piloted and then improved iteratively.

195 A further issue with putting forward a 'climate-enhanced EIA' to become the single type of in-depth assessment available in the EC's toolbox, is that it would presumably only be used for projects that result as screened both HIGH for environmental risk AND screened at least MEDIUM or HIGH for climate risk – so may be the wrong tool for the job. It is proposed that the ToRs for Comprehensive Assessment of High-Climate Risk Projects should be refined and pilot tested. The ToRs for EIAs should be modified from the standpoint of integration of methods and ensure consistency in the types of output. Some specific comments based on the above perspective may be found in Technical Appendix T 6 *Terms of Reference for an Environmental Impact Assessment (Annex 8, EIH)*.

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

Advantages, Lessons Learned and Limitations of CSP Screening Approach

196 Addressing the climate challenge requires appropriate measures to ensure that projects; programmes and country portfolios stay effective under climate change. Partner countries expect that donors such as the EC will provide guidance on how to include models of practical climate risk management in support for national development. Drawing on development research literature and guidance, issues include:

- § Moving beyond technocratic capabilities alone to adapt to current weather extremes and CV by aligning climate and disaster risk management within the development process;
- § Building up core livelihoods' resilience, considering non-climate issues, by focusing on social change under all sources of significant risk (for example including poor local governance and the negative aspects of globalisation);
- § Supporting devolved systems of social risk management and enhanced civil contingencies planning;
- § Applying improved vulnerability assessment at the local level that evaluates key assets potentially affected by CC (drawing usefully on the Sustainable Livelihoods Framework);
- § Focusing on entire systems - not just those parts that are sensitive to climate stimuli; and
- § Striking a balance between a scenario and science-led top-down approach and locally-based vulnerability methods that offer the possibility of more seamless mainstreaming.

197 The *Screening and Assessment in Climate Change Risk Evaluation approach* indicates that (even accounting for assumptions and the caveats listed above) proxies for exposure, sensitivity and adaptation capacity could be assembled to provide an overall relative (not absolute) measure of CSP portfolio under climate risk. The Approach highlights the significant elements and how they jointly constitute vulnerability. While this attempt to compare vulnerability across countries and derive a value for the exposure of CSPs to climate risk is unlikely to be fully robust statistically, the need for efforts by large international donors such as the EC to assess climate risks at the country-level is clear.

198 CSP portfolio screening for decision-making, or to develop CSP resilience options, is better carried out studying in-country in order to allow for a reality check on the ground. Information available remotely was only moderately sufficient to reach an evidence-based assessment.

199 A significant issue impeding CSP screening is the uneven use of sector terminology which in the sample of nine CSPs and one RSP, often deviated a great deal from accepted European Consensus sector classification. In addition, limited descriptions of initiatives listed in CSPs and indicative programmes reduce the evidence base that could be called upon. Given that it is hard to remotely determine the geographical location of a project's activities (to estimate the related exposure) much weight rests on the initial "sector filter". Also, assessing the assumptions used to decide if a project should be deemed under climate risk is made difficult by lack of information about a project's risk management and the quality of partner government policies, such as engineering standards, DRM and spatial planning/building control policies. This is particularly a problem when sector vulnerability to climate impacts is marginal, for example, in Education Sector initiatives that could be estimated as not at risk, if the planning by local authorities of school siting does in fact account properly for extreme weather and climate risks.

200 Potential improvements to the CSP portfolio screening approach could be based on refinement using data on current vulnerability from hazards databases (such as EM-DAT). As well, further versions could be restricted to specific combinations of hazards and impacts - such as **hurricanes > floods > landslides** or **droughts > reduced water supply > reduced agricultural yields**. This would allow for more specific selection of proxies for exposure, sensitivity and adaptation capacity that are based on research into vulnerability to that specific risk. Another perspective would be to develop versions of the Portfolio Screening Approach that focuses on specific programming sectors, which would provide details about which components and activities in that sector are differentially vulnerable to climate risk. This would be consistent with the intra-sector classification now included in the revised Project Climate Change Risk Screening procedure (Annex 7), and would furthermore be a bridge to the Sector Scripts in the EIH.

Evaluation of Climate Risk Coverage in CEPs and CSPs

201 Review and analysis of the CC-related content of the CSPs and NIPs of the nine pilot countries showed that very few contained reference to CC as an issue of serious concern. In almost all CSP cases, CC, when mentioned, is referred to as a mitigation concern, even when serious projected impacts are apparently recognised. Of those analysed, only the CSP/CEPs for Swaziland, Ethiopia and Guyana covered climate risk issues at any depth in relation to sector selection, and the potential of climate risk affecting development processes. The CEPs do explain partner adherence to international conventions such as UNFCCC, though do not usually cover projected impacts in sufficient detail for programming purposes.

202 The weak treatment of climate risk issues is understandable with hindsight, considering the step-by-step process of mainstreaming standard environmental issues into the CEP-CSP process, and reflects the limited request for inclusion of CC issues in earlier versions of the ToRs of CEPs. This was due to a far lower emphasis given to CC issues - both adaptation and mitigation - by the EC and other organisations in earlier years. This is being rectified, as seen in the ToRs for CEPs in the EI Handbook.

203 The remaining issue of concern is deciding the most appropriate priority to give to the section on CC within the CEP and then within the CSP. The Study argues that a robust, dedicated section should be developed as a minimum. Ensuring that improved CC content of the CEP makes a difference to CSP programming, relies on climate risk information being translated and made useful within the linked CSP. This could benefit from framing climate impacts and risk management not as 'just' an environmental issue, but as a cross-sector, cross-cutting theme with the capacity to affect the attainment of almost all the MDGs.

Synergies with GHG Mitigation Potentials

204 Identifying the potential for substantial synergies between CC mitigation (reductions in GHG emissions) and adaptation to CV requires specialist research effort. This first has to work out the areas of overlap between developing-country sectors that have mitigation potential with those sectors that are most vulnerable to CC impacts. In most cases, this first assessment would not select for sectors with the highest volumes of GHG emissions, such as transport, industry and energy production.

205 The sectors that are highlighted as overlapping would be those where unsustainable use of environmental resources, usually within rural development, produces high volumes of GHG in activities which generate high levels of social and economic vulnerability. The more obvious examples are poorly-managed industrial-scale timber extraction, and deforestation which either degrades forest carbon stocks or converts land to non-forest uses. Forests as providers of many ecosystems services and arrays of products, demonstrate multiple adaptation/mitigation synergies, but this sector is well covered by existing REDD-type initiatives and is of course now subject to international pressure within climate negotiations. Renewed attention to the topic of reduced deforestation is however, likely to be located and funded as a mitigation concern rather than as an adaptation issue. The exception is when forest ecosystem services benefit the water sector, such as where control of deforestation in vulnerable watersheds generates downstream water supply benefits.

206 As reported in UNFCCC National Communications, GHG emissions from agriculture and livestock ranching may be significant. Options do exist to shift agricultural systems towards conservation practices such as cover cropping and agro-forestry that emit lower volumes of GHGs, and these could make substantial contributions to diversified stable livelihoods. Identifying these kinds of practces, that offer the opportunity to be rapidly scaled up to provide both types of benefits, is a task that rural development, forestry and agriculture stakeholders are increasingly taking on, for example through programmes in the context of community-based adaptation.

Climate Change Resilience-Building in the CSPs at Risk

207 Incorporation of climate/disaster management 'entry points' into the CSP/NIP, identified in the Sector Scripts would result in "climate and disaster risk management integration outcomes" planned to be achieved via immediate, medium and long-term actions within the EC's response strategies.

208 To avoid confusion between the two aspects, it may make sense to treat CC mitigation and GHG controls as a separate concern within 'environment', allowing adaptation to CC risk and impacts to be understood as a development, anti-poverty and national security priority. Integration of the issues of

vulnerability, impacts and adaptation' to both CC and to disasters should allow these two issues (when treated jointly) to be considered on equal terms with the topic of the 'environment'.

209 Upcoming Mid-Term Reviews of CSPs would be good options to further develop climate risk into CSP programming otherwise integration will depend on the timing of new formulation rounds of country and regional strategy papers. Building resilience in programming will require and rely on several other factors in the human resources dimension, such as training and boosting the role of 'adaptation champions' within EC DELs and in partner organisations, as well as intra-EU collaboration.

210 The departure point for country analysis is to identify gaps and propose actions that strengthen the government capacities, so that through CSP programming it allows the opportunity to implement realistic strategies for building climate resilience. The process has to be widely-supported by major stakeholders and, for coherence, partner institutions such as Climate Change Offices, Committees or equivalents should count on a clear policy and legal basis.

211 Programming may consider stand-alone interventions for example those that improve the handling of CC information, or similar direct risk management initiatives that directly confront climate impacts. It is important to identify leverage points where resources applied effectively can reduce vulnerability to climate variability and facilitate resilience to oncoming climate change. Examples might be programmes with goals such as collective disaster insurance schemes, and establishing communication between national meteorological and civil society bodies involved in social resilience actions, such as municipal and community-based disaster preparedness units.

212 Information about the state of country understanding of CC and about maturity in adaptation policy/practice of partner governments and country stakeholders must be gathered through interviewing a wide range of informants and extensive document review. A key focus will be to gather evidence about useful entry points in each sector where aid and partner resources can be used for greatest benefit.

213 Organisations grouped together through 2009 to prepare UNFCCC National Communications should be used as a resource. Individuals and organisations could be identified by EC Delegation staff as the nationally-relevant grouping, and engaged when preparing the CC sections of future CEPs.

Integration of Climate-Risk Management in General- and Sector- Budget Support

214 Key sectors requiring EC support should be indicated in the CSP, as identified through processes such as SEA and in profiles such as UNFCCC communications and CEPs. Delivery of CC adaptation objectives could be made more precise for sector budget support programmes that specify what is expected to be achieved and by when, ensuring that indicators measure performance in terms of actual improvements in the risk management of the impacts due to disasters and climate change.

215 Economic assessments of the impacts of CC on sectors, such as those prepared by the regional banks, could offer entry for dialogue mechanisms used in SPSP design, opportunities which EC Delegation managers could maximise. For sectors and sub-sectors considered sensitive to CC impacts, donor joint-working with partner government and sector ministries could identify key weaknesses in disaster and CC impacts monitoring and response systems and give increased priority to improving them.

216 For GBS programmes, climate risk integration opportunities should be assessed in the CSP against the PRSP and national DRM and climate risk mitigation plans. The Study suggests that GBS could best tackle CC issues if these are explicitly factored in the country's PRSPs, just as was the case with DRM. This would allow policy dialogues around GBS to judge how significant those vulnerabilities are across the partner's systems and sectors, and propose designs of GBS consistent with recipient country policies.

217 Of the aid delivery modalities used by the EC, SBS offers the required balance between scale of delivery (capable of handling large volumes of funding) and traceability of EC investments to ensure these are not exposed to unacceptable levels of fiduciary risk. SPSPs are the principal route that could enable the transfer (and the effective uptake by partners to deliver required outcomes) of the increasingly-higher volumes of climate-focussed development aid that will be needed, as CC impacts begin to kick-in, with successively graver effects on decadal time scales.

218 This requires internal discussion within the relevant Delegation about the viability, non-climate risks and prospects for further investments in currently-supported focal and non-focal sectors. It also requires

information about the implementation status of the current CSP and a forward look based on detailed government-EC planning.

219 CC should be discussed in a framework broader than the environment to ensure the effective mainstreaming into GBS, in order to avoid that the direct relevance of CC is clouded by economic growth and development planning (such local spatial planning issues, energy policy implications and tackling the diverse and high risks of impacts of CC on poverty alleviation). This means that adaptation funding through budget support certainly requires an adaptation-specific assessment framework. This is scientifically challenging, and requires innovation.

Project Climate Change Risk Screening

220 The evaluation of the *Project Climate Change Risk Screening* procedure proposed to be integrated in the toolbox for environmental and CC integration in development cooperation has been positive. While considerable modifications were made, the country meetings at Delegations focussing on its validation confirmed that the procedure could be used at the end of identification, and then to guide questions to ask during formulation. Detailed guidance for the *Project Climate Change Risk Screening* needs to be provided alongside training to make sure that uptake is made as easy as possible.

221 However, the inconsistent use of a common sector terminology makes it difficult to draw overall conclusions about which sectoral initiatives could generally be considered at risk. There is a tendency for a predominance of vulnerable rural development and transport projects where impacts are potentially direct and significant. Natural resource-based initiatives such as forestry and water are deemed at-risk because of direct climate impacts on rainfall or ecosystem health.

222 Vulnerability-based information is more accessible, but poor integration of the climate risk and disaster management communities results in weak evidence bases for project formulators. Adaptation to current weather stresses and disasters, and to today's climate variability, remains the better option for approaching the issues and impacts that need to be faced on longer time-scales.

Project Climate Change Risk Assessment

223 Given the current state of knowledge, it is difficult to clearly define the boundaries of, and methodologies for, the in-depth climate risk assessment of projects. The uncertainty surrounding CC projections, in particular at the local level, is such that emphasis is often given to the use of historical data more than climate projections. This is reasonable given that data scarcity is frequently a major limitation for in-depth risk assessments. This however implies that the rationale and designs of adaptation options would be overly-based on vulnerability considerations, rather than accounting for scenarios of future impacts from climate stimuli. Also, there are concerns how in-depth assessments could require significant capacities from consultant teams involved in project formulation, and the burden that this may impose on EC Delegation task managers who are required to formulate terms of reference, assess the outputs of the assessment, and steer the formulation process.

224 The option of increasing the coverage of climate risk issues within the ToR for EIAs was examined, to assess whether the procedure of 'enhanced EIA' could take the place the in-depth or comprehensive assessment of high-risk projects. Given the conceptual differences between environmental impacts and climate change impacts, this option was not recommended.

225 The results of the testing of tools for climate risk screening as well as key results of this study should feed into the revised *(Draft) Guidelines on the Integration of Environment and Climate Change in Development Cooperation.* The Guidelines substitute the Environmental Integration Handbook and constitute the main toolbox prepared by EuropeAid Cooperation Office to support the integration of environment and CC in all sectors of cooperation. The guidelines provide those in charge of planning and delivering external aid with a coherent operational framework and a set of tools to be applied in the different phases of the cycle of operations and in relation to the three main aid delivery methods. Appropriate and consistent use of these G*uidelines* could be expected to further improve the mainstreaming of environmental and CC concerns in all sphere of development cooperation.

226 The *Terms of Reference for a Comprehensive Assessment of High-Risk Climate Change Project* was provided towards the end of the Study and was briefly commented on. This comprehensive assessment is scientifically-challenging and requires some innovation. This Study finds that the role of the in-depth comprehensive assessment is intrinsic to the system for climate risk management that the EC is in the process of establishing.

5.2 Recommendations

Advantages, Lessons Learned and Limitations of CSP Screening Approach

227 Continue to develop the Approach provided, updating with better-fit proxies and other refinements proposed, bearing in mind that choices of proxies and their weighting means that the results are comparative between countries, and relative, not absolute.

228 Consider in-depth, in-country, portfolio screening of two or three weeks duration for large aid CSP programmes, and for programmes with large numbers of initiatives under some climate risk.

229 Future CSP programming is recommended to continue to, and improve, use of standard European Consensus terminology for naming the sectors identified during programming.

230 Consider CSP programming to continue to, and improve, use of standard European Consensus terminology for naming the sectors identified during programming; and,

231 Improve integration of the climate risk and disaster management communities to improve the evidence bases for project formulators.

Evaluation of Climate Risk Coverage in CEPs and CSPs

232 Greater emphasis on CC-related content in CEPs in accordance with the Study proposed Contents Page.

Synergies with GHG Mitigation Potentials

233 Sector assessments, as proposed for inclusion in CEPs, should include low carbon development and review of cross-overs between mitigation and adaptation, as themes to be reported on both during exercises such as SEA and during preparation of initiatives at varying stages.

Climate Change Resilience-Building in the CSPs at Risk

234 Until a new CEP is developed, the Mid Term Review is recommended to be the main option to introduce more detailed treatment of CC in the CSP.

235 Integration of climate and disaster management is recommended by supporting the structuring of meteorological information service for adaptation planning, integrated with knowledge management for national DRR platforms and implementation of the Hyogo Framework for Action.

236 Recommend that the inclusion of climate risk management in CEPs and CSPs, should take into account regional UN and EC Action Plans for DRM in disaster-prone regions, requiring scaling-up and integration of existing (EU/other donor) DRM programmes, with complementary climate adaptation initiatives supported by the EC or other donors.

237 Recommend that EC Delegation staff Organisations should identify the networks, organisations, and individuals preparing UNFCCC National Communications and encourage their participation in EC country programming.

Integration of Climate-Risk Management in General- and Sector- Budget Support

238 Recommend the design and delivery of SBS programmes that specify what is expected to be achieve and by when, ensuring that indicators measure performance in terms of practical disaster and dimate risk management outcomes.

239 Recommend that, in an integrated focus, policy dialogue and SEAs deliberately engage in wider consultation, to describe the state of the sectors at-risk and of interest, to identify and evaluate (even using ranking) the major climate/disaster-related research and development priorities facing those potential priority focal sectors.

240 For GBS programmes, while progress is assessed against the existing PRSP, partner governments should account for national objectives alongside international adaptation/mitigation commitments. Recommend that efforts are made to encourage partner government, with joint –donor support, to build significant climate and disaster risk management elements into PRSPs and/or to develop significant climate risk management content in PRSPs.

Project Climate Change Risk Screening and Project Climate Change Risk Assessment

241 Recommend continued development of the *Project Climate Change Risk Screening* procedure through a roll-out exercise that allows for iterations to correct any problems as it becomes applied by the Delegations.

242 It is proposed that the ToR for *Comprehensive Assessment of High-Climate Risk Projects* should be refined and pilot tested.

243 Recommend that once the *Project Climate Change Risk Screening* procedure is rolled out into use by Delegations, the *Comprehensive Assessment of High-Climate Risk Projects* could then be piloted and improved iteratively.

6.0 ASSUMPTIONS, LIMITATIONS AND UNCERTAINTIES

This section comments on aspects of the assignment that should be taken into account when reading this report.

6.1 Assumptions

The following assumptions apply:

Programme Level

244 Large-scale, long-term, multiple and systemic risks face countries due to complex combinations of hazard with local vulnerabilities. The characterisation of hazard and vulnerability in this Study is necessarily crude, as these are based on approximate World Bank figures, themselves based on projections that may be conservative.

245 Complex relationships exist between risk variables, and this approach relies on several assumptions about the nature and significance of those linkages at country scale. It is well known in the DRR community that the socio-economic causes of local vulnerability to extreme weather events (such as droughts, hurricanes and floods) vary almost on a case by case basis. This means that the attempt to generate a Country Vulnerability Index is necessarily crude.

246 Climate information would be available so as to build up an overall climate risk profile for the two countries of interest. While considerable data was available for Philippines, the observational and projections information was limited in the case of Papua New Guinea,

Project Level

247 It was assumed that there would be at least two projects per country that would be climate-sensitive, on which to apply the test of Project Climate Risk Screening and if time allowed, to at least partially undertake in-depth assessment (Project Climate Risk Assessment) that could propose and cost specific adaptation measures.

- For the Philippines, which was not selected on the basis of CSP portfolio exposure, scoping of programmes showed that only the Health SPSP Phase I and the Mindanao Trust Fund were likely to contain climate-sensitive components, so these were screened.

- For Papua New Guinea, the Rural Economic Development programme was still under formulation, but progress in the assessment was hindered due to the need for competitive grant financing, which meant that field activities were only broadly defined beforehand in the draft project documents. The Rural Water Supply and Sanitation programme could already be considered as featuring proactive CC adaptation, in that its purpose was to generate health benefits through solving current and future water scarcity. This 9th EDF project was technically outside the scope of the assignment.

6.2 Limitations

The following limitations apply:

248 The uncertainties listed (7.3) mean that, as a portfolio assessment exercise, this Study may not be fully verifiable, to the degree that it is used as a decision-making tool, for example to distribute scarce funds across competing regions and contexts.

249 The developed Approach could be refined by choosing other indicators as proxies for the elements of vulnerability, as any given set of variables could lead to alternative suggestions for how these data are handled (weightings, sources chosen, ranges applied and scoring). This limits the applicability of the Approach as support for climate risk screening and assessment at CSP and project levels. A more participatory selection process of the indicators might be desirable, but this has its own risks, as it would be easy to lose climate-change focus.

250 The Annex 2 procedure was withdrawn just prior to the country visit though the assignment objectives remained valid. This was not considered to present much of a challenge until it was clear during the country visit that the initiatives available had features that impeded undertaking the step of Annex 2 that could lead to identification and costing of adaptation measures. However, a further version of in-depth assessment was examined and commented upon.

251 There were four available days for meetings in the Philippines and slightly less than that for Papua New Guinea. Whilst the analysis has some depth at Screening Level, further progress would have required more time available in-country and participatory engagement with project stakeholders to generate validated information through a structured process.

252 The relevant interventions in the Philippines were budget support, and since the Climate Risk Screening and In-depth Assessment tests were designed for formulated projects this means the depth of analysis was modest. Comments on embedding climate risk within budget support have been supplied.

6.3 Uncertainties

The following uncertainties apply:

253 Candidate CSPs are for countries with diverse environments and development contexts. In the face of these, the developed Approach is a very broad-brush attempt that generates single indices with the intention that these should be meaningful about a range of key long-term hazards, linked with extreme events. The contextual nature of risk is hardly addressed here, given the top-down approach used

254 Issues of scale, given that events such as disasters are local and entities affected - human communities - show heterogeneous responses to diverse climate-related stimuli

255 Significant uncertainties prevail in climate science projections for data-poor developing country regions. This crude approach does not fully address the effects of the time dimension over which CC becomes a recognisable certainty in terms of felt impacts. This reinforces the fact that CV, and not definitive CC, is the main issue of concern for current EC-supported programmes and projects.

TECHNICAL APPENDICES

T. 1 Programme Level Screening

The CSP *Screening and Assessment in Climate Change Risk Evaluation* is an Excel-based spreadsheet and is separately available.

Overleaf are some relevant extracts:

T 1 A	Overall Results of Portfolio-at-Risk Screening
T 1 B	Country Risk and Vulnerability Factors
T 1 C (i)	Programme and Project Data taken from CSPs/NIPs *etc ~ basic descriptions*
T 1 C (ii)	Programme and Project Data taken from CSPs/NIPs *etc ~ climate change risk reasoning and budget analyses*

T 1 A Overall Results of Portfolio-at-Risk Screening

SUMMARY RESULTS OF 'PORTFOLIO-AT-RISK SCREENING' - COMBINATION OF THE DETAILED EXAMINATION OF EACH INITIATIVE WITHIN THE CSP, WITH THE COUNTRY RISK FACTORS										
DATA TYPE	**Brazil**	**Egypt**	**Ethiopia**	**Guyana**	**India**	**Mali**	**Papua New Guinea**	**Philippines**	**Swaziland**	**Central America**
Overall Country Vulnerability Factor - Value - Note: this does not account for climate shift	0.15	0.18	0.61	0.17	0.40	0.17	0.41	0.32	0.21	0.13
Overall Country Risk Factor - Value - includes an adjustment for projected degree of CC	**0.70**	**0.76**	**1.59**	**0.71**	**2.19**	**0.93**	**0.58**	**0.50**	**0.50**	**0.74**
CSP % Portfolio-at-Risk - Value - filtered by sector and by the four 'key questions' - derived from the Project and Sector Analysis	30	61	61	35	42	70	53	0	79	0
"CSP % Portfolio-at-Risk" - Country Risk Factor Adjusted	**21.0**	**46.4**	**96.6**	**24.6**	**92.5**	**64.6**	**30.7**	**0.0**	**39.7**	**0.0**
Ranking of CSP/country-risk filtered "% Portfolio-at-Risk"	**8**	**4**	**1**	**7**	**2**	**3**	**6**	**9**	**5**	**9**
Five CSPs originally selected with portfolios at higher risk - in the first version of this spreadsheet (prior to country visits and before including information from Delegations) ** = selected as "riskier"*	no	**selected***	**selected***	no	**selected***	**selected***	**selected***	no	no	no

T 1 B Country Risk and Vulnerability Factors

RESULTS FOR CALCULATION OF COUNTRY VULNERABILITY AND RISK										
COUNTRY RISK and VULNERABILITY FACTORS	**Brazil**	**Egypt**	**Ethiopia**	**Guyana**	**India**	**Mali**	**Papua New Guinea**	**Philippines**	**Swaziland**	**Central America**
1. Proxy for Exposure = country exposed to geoclimatic risk (sheet I)	**0.4**	**0.6**	**0.4**	**0.4**	**0.6**	**0.2**	**0.5**	**0.6**	**0.3**	**0.4**
2. Proxy 1 for Sensitivity = Undernourishment Index (sheet II)	0.06	0.05	0.46	0.06	0.21	0.11	0.20	0.16	0.18	0.14
3. Proxy 2 for Sensitivity = Negative Govt Effectiveness/Absence of Violence (sheet III)	0.53	0.38	0.72	0.54	0.60	0.57	0.65	0.64	0.56	0.44
4. Combined proxy for Sensitivity (Undernourishment, Govt Effectiveness, Absence of Political Violence)	**0.30**	**0.21**	**0.59**	**0.30**	**0.40**	**0.34**	**0.42**	**0.40**	**0.37**	**0.29**
5. Proxy for Adaptive Capacity = Human Development Index (sheet IV)	**0.81**	**0.72**	**0.39**	**0.73**	**0.61**	**0.39**	**0.52**	**0.75**	**0.54**	**0.76**
6. Country Vulnerability = $\frac{\text{Exposure X Sensitivity}}{\text{Adaptive Capacity}}$	**0.15**	**0.18**	**0.61**	**0.17**	**0.40**	**0.17**	**0.41**	**0.32**	**0.21**	**0.13**
7. Climate Shift = projected degree of climate/weather event impacts (sheet V)	**0.48**	**0.42**	**0.26**	**0.43**	**0.55**	**0.54**	**0.14**	**0.16**	**0.24**	**0.55**
8. Overall 'Country CC Risk Factor = Climate Shift X Country Vulnerability (see caveats below)	**0.70**	**0.76**	**1.59**	**0.71**	**2.19**	**0.93**	**0.58**	**0.50**	**0.50**	**0.74**

T 1 C (i) Programme and Project Data taken from CSPs/NIPs etc ~ basic descriptions

TITLE	PROGRAMME AND PROJECT DATA TAKEN FROM CSPs / NIPs AND FROM RELEASES PUBLISHED ON EU DELEGATION WEBSITES / RELATED SOURCES	FOCAL SECTOR CODE	STATED SECTOR OF CONCENTRATION	EU CONSENSUS SECTOR	OPERATING IN SECTOR VULNERABLE TO CLIMATE VARIABILITY / EXTREME WEATHER / FUTURE CHANGE
Brazil					
Municipal agreement for reduction of deforestation	Will contribute to the Brazilian Government's policy to protect the country's threatened biomes, especially the "Sustainable Amazon Programme". Protecting the forest implies taking into account the needs of the population living in the forest. Local populations are the most dependent on natural resources for their survival, which they are often forced to over-exploit. They are also the first and worst affected by any degradation of the environment. To promote sustainable development at community level, it is essential to secure access to land for the local population and to foster productive activities that do not destroy the environment in the region. While there seems to be sufficient financial support for protected areas and biodiversity conservation, a funding gap exists for this type of activity. At the same time, this is a chance for local communities to combine the social, economic and environmental dimensions of sustainable development. A cooperation programme could support sustainable production of the many underexploited forest products, like fish, fruits, colouring agents, medicinal plants, vegetable oils, nuts, etc. and add value to these products, through local processing. By increasing the income and well-being of the local population, conditions could be created to contribute to reducing deforestation rates.	SoC2	**Promoting the environmental dimension of sustainable development**	**7. THE ENVIRONMENT AND SUSTAINABLE MANAGEMENT OF NATURAL RESOURCES**	**Yes**
Institute of European Studies	Aims at establishing a European Studies Institute in Brazil, with the main purpose of raising the EU's profile and strengthening higher education links. The Institute would include a European Documentation Centre with a specialised library to support teaching and research on European matters. The Institute would be hosted by a locally well-known and prestigious institute of higher education, but will closely involve others in its activities, and should supplement the ESP centres to be set up under the EC-Mercosur cooperation programme.	SoC1	**Enhancing bilateral relations**	**3. TRADE AND REGIONAL INTEGRATION**	**No**

EU-Brazil Sector Dialogues Support Facility	To strengthen bilateral relations and support sectoral dialogues on themes of common interest between relevant Brazilian and European stakeholders (governments, public administrations, other institutions, business associations, civil society organisations, etc.). Existing sectoral dialogues cover areas such as social, economic, information society, regional planning and environmental issues	SoC1	**Enhancing bilateral relations**	**3. TRADE AND REGIONAL INTEGRATION**	**NO**
Academic Mobility Programme Brazil 2007-2010	Facilitate access to European Higher Education Area for Brazilian postgraduate students and university professionals in order to increase their employability skills and opportunities in their country. This will in turn contribute to strengthening political, economic and cultural links between the EU and Brazil. The programme will provide a means of funding scholarships for Brazilian postgraduate students and may entail capacity-building for universities and exchange of teachers. A specific university-level scholarship programme will be established to facilitate links between the EU and Brazil in higher education and therefore increase the number of Brazilian students who complete postgraduate studies in Europe. The programme should receive the highest visibility in particular through a name that embodies European excellence.	SoC1	**Enhancing bilateral relations**	**3. TRADE AND REGIONAL INTEGRATION**	**No**
Egypt					
Support to the implementation of the Action Plan Programme (SAPP)					
Targeted support for sector reforms-Transport	Support in the fields of transport (railway restructuring, maritime safety and security, aviation market liberalisation and its safety and security, Preparation of legislation and administrative capacity-building, including development of regulatory bodies and regulatory convergence with Mediterranean partners and the EU)), promotion of energy efficiency and renewable energy sources, the environment (legislative reform, administrative capacity-building at central and local levels and infrastructure projects) and the information society (strengthening of regulatory bodies and capacity-building of public bodies).	SoC3	**Ensuring the sustainability of the development process - reform of education, health and support for investments in energy, transport, and environment**	**4. INFRASTRUCTURE, COMMUNICATIONS AND TRANSPORT**	**Yes**

Support to Rural Development	The Support to Rural Development project (SRD) aims at providing technical assistance and institutional capacity building to the Government of Egypt to support the implementation of a national pilot programme to develop a conditional incentive-based rural development strategy. This pilot programme falls into the key objectives of the Egyptian Government for poverty alleviation, sustainable development and economic growth. It is structured around four strategic pillars: 1) Agriculture competitiveness; 2) Environment and sound land management; 3) Rural quality of life and economic diversification; and 4) Building local institutional capacity. The pilot programme will target small and marginal farmers in old lands and aims at introducing good agricultural practices, water saving techniques, environmentally friendly farming, local economic growth, development of a strong agri-business sector, job creation through economic diversification of rural economy and the reduction of the gap in living standards between rural and urban communities	SoC2	**Developing the competitiveness and productivity of the Egyptian economy**	**8. RURAL DEVELOPMENT, TERRITORIAL PLANNING, AGRICULTURE AND FOOD SECURITY**	**Yes**
Support for political development, decentralisation and promotion of good governance	Decentralisation enhances democratic practices and improves the management and standards of public services. Adoption of the new decentralisation law is among the first priorities in the Government's political reform programme. In Egypt quality of governance can be improved by increasing public accountability, information (transparency) and appeal procedures (contestability) and set up adequate mechanisms to fight corruption. Three components: • Electoral process • Decentralisation reform • Good governance	SoC1	**Supporting Egypt's reforms in the areas of democracy, human rights and justice**	**1. GOVERNANCE, DEMOCRACY, HUMAN RIGHTS AND SUPPORT FOR ECONOMIC AND INSTITUTIONAL REFORMS**	**No**
ISWP (Improved water and waste water services programme)	IWSP is to provide support to improve the performance of the Affiliate Companies (ACs) - of the Egyptian Holding Company for Drinking Water and Wastewater (HCDWW). Its main activities are 1. An investment programme for improving the quantity, quality and efficiency of the water supply and particularly wastewater services in the four governorates Sharkia, Gharbia, Damietta and Beheira in the Nile Delta region. About 4 million inhabitants will benefit from this action through the implementation of civil works, provision of electro-mechanical equipment, pipelines, goods and associated services. 2. Capacity building and institutional strengthening of HCWW in four or three key pillars	SoC3	**Ensuring the sustainability of the development process through the improvement of water management**	**8. RURAL DEVELOPMENT, TERRITORIAL PLANNING, AGRICULTURE AND FOOD SECURITY**	**Yes**

SAAP III-Support to the Implementation of the Action Plan Programme and the Association Agreement	In the context of the ENP Action Plan, the SAAP III Programme contributes to national efforts towards strengthening the regulatory, monitoring, and operational functions of the public administration, particularly through the utilisation of Institutional Twinning. Technical assistance is provided as such to strengthen institutional capacities of the public administration, or be used as preparatory/complementary phase for twinning projects. The design of new twinning projects will be very much in line with the relevant ongoing and future EC Sector Policy Support in various areas (Transport, Water, Education, renewable energy, energy efficiency etc.).	SoC2	Developing the competitiveness and productivity of the Egyptian economy	4. INFRASTRUCTURE, COMMUNICATIONS AND TRANSPORT	**No**
Promotion and protection of human rights	To promote and protect human rights, EU assistance will be targeted at strengthening the culture of respect for human rights and fundamental freedoms, and the capacity and effectiveness of all competent institutions, including the security apparatus and the police, and at supporting formulation of a national human rights strategy by the authorities. Cooperation will be provided to support protection of women's and children's rights and to enhance the freedom of expression and independence of the media. Specific attention will be paid to enforcement of protocols and international conventions related to human rights to which Egypt is party (on political and civil rights, economic, social and cultural rights, women's rights, children's rights, torture, racial discrimination, the death penalty and the status of refugees).	SoC1	Supporting Egypt's reforms in the areas of democracy, human rights and justice	1. GOVERNANCE, DEMOCRACY, HUMAN RIGHTS AND SUPPORT FOR ECONOMIC AND INSTITUTIONAL REFORMS	**No**
HSPSP II-Health Sector Policy Support Programme II	Support to the health sector founded on the principles of human equity and social stability. In addition, EU support could include the fight against communicable and non-communicable diseases, in particular through facilitating the implementation of international treaties in the area of public health. Support was given to the health sector reform through a programme of €110 million, which ended in 2007 implemented in five pilot Governorates. A total of 125 Family Health Units in primarily rural areas were constructed/rehabilitated and equipped with medical and non-medical equipment. Medical and paramedical staff has been given specialised training and a Family Health Fund (FHF) was established to provide a high quality primary health services. A further €120 million to support health sector reform is planned in 2009.	SoC3	Ensuring the sustainability of the development process - reform of education, health and support for investments in energy, transport, and environment	9. HUMAN DEVELOPMENT	**Yes**

Education Sector Policy Support Programme (ESPSP)	This programme aims at strengthening access, quality and gender equality in the education sector, and builds on important reforms already introduced under the €100 million Education Enhancement Programme funded by the Commission which ran until 2006.	SoC3	Ensuring the sustainability of the development process - reform of education, health and support for investments in energy, transport, and environment	1. GOVERNANCE, DEMOCRACY, HUMAN RIGHTS AND SUPPORT FOR ECONOMIC AND INSTITUTIONAL REFORMS	**Yes**
200 Mega Watt Wind Farm, Gulf of El Zayt	The programme consists in setting-up a 200 MW Wind Farm in the Gulf of El-Zayt. The project which involves studies, design, construction, commissioning and operation of a large-size (up to 200 MW) onshore wind farm to be located on the west bank of the Gulf of Suez.	SoC3	Ensuring the sustainability of the development process through support to renewable energies	8. RURAL DEVELOPMENT, TERRITORIAL PLANNING, AGRICULTURE AND FOOD SECURITY	**Yes**
Support for reforms and education					
Support to Good Governance and Local Development					
Research, Development and Innovation - Phase •					
Support for Modernization of Admin. of Justice and Enhancement of Security					
Enhancement of Cultural Activities in Egypt, Bibliotheca Alexandrina					
Water Sector Reform Programme II (BS)					
Support to Implementation of Action Plan and Association Agreement - SAAP					

Ethiopia					
TECHNICAL COOPERATION FACILITY III (TCF III)	Continuation of the existing TCF and provides for a special reservation of funds for analytical work. Also covers a reserve for insurance against possible claims and to cover cost increases and contingencies.	NFS3	Technical cooperation facility	11. TECHNICAL COOPERATION FACILITY	**No**
SUPPORT TO THE PRODUCTIVE SAFETY NETS PROGRAMME OF ETHIOPIA / Rural Development and Food Security	PSNP is important multi-donor funded programme extending support to more than 10% of the Ethiopian population to provide predictable transfers to the food insecure population in order to reduce the food gap, to prevent further asset depletion at the household level and to create/preserve assets at the community level. In time PSNP to become a more effective protection and risk management mechanism. It works on cash first transfer as opposed to a food aid provision. To benefit from PNSP, 85% of the targeted population carry out public works at the local level. The core activities carried out to date are construction/rehabilitation of rural roads, and soil and water conservation. An Environmental and Social Management Framework developed and agreed upon by Government and donors ensures that public work activities are not negatively impacting the environment. The PSNP also has the potential to evolve into a comprehensive social protection strategy in the longer term. In particular, further dialogue could focus on making the PSNP evolve from a geographical focused programme into an entitlement based intervention that is part of the Government's social protection policy.	SoC2	Rural development and food security (support to productive safety net programme, support to agricultural market, management of NR, rural-urban kikage and urban dev, rural electrification)	8. RURAL DEVELOPMENT, TERRITORIAL PLANNING, AGRICULTURE AND FOOD SECURITY	**Yes**
SUPPORT TO DEMOCRATIC INSTITUTIONS PROGRAMME	The overall objectives of this support are: (i) to support the Government's commitments towards strengthening the democratisation process and improved democratic governance; (ii) to develop the dialogue between State and non State actors with a view to creating an open, democratic and participatory society; and (iii) to promote gender equality and women's empowerment and rights, contributing to the equitable, democratic and productive functioning of Ethiopia's society.	SoC3	Macroeconomic support and governance (strengthening macro governance, democratic governance, CB in key institutions)	1. GOVERNANCE, DEMOCRACY, HUMAN RIGHTS AND SUPPORT FOR ECONOMIC AND INSTITUTIONAL REFORMS	**No**
SECOND PHASE OF PROTECTION OF BASIC SERVICES (PBS II)	It is not clear how this is currently being programmed as it may go to GBS	SoC2	Rural development and food security (support to productive safety net programme, support to agricultural market, management of NR, rural-urban linkage and urban dev, rural electrification)	8. RURAL DEVELOPMENT, TERRITORIAL PLANNING, AGRICULTURE AND FOOD SECURITY	**Yes**

PARTICIPATORY FOREST MANAGEMENT PFM ETHIOPIA (CRIS 2008/019763)	Little guidance on this in the NIP; it seems to fall under Management of natural resources Specifically the 3rd measure: to promote conservation, use and national and international valorisation of Ethiopian's (agro)-biodiversity in all parts of the country.	SoC2	Rural development and food security (support to productive safety net programme, support to agricultural market, management of NR, rural-urban linkage and urban dev, rural electrification)	8. RURAL DEVELOPMENT, TERRITORIAL PLANNING, AGRICULTURE AND FOOD SECURITY	**Yes**
Second Sector Policy Support Programme (SPSP II) in support of Ethiopia's Road Sector Development Programme (RSDP)	Includes Improved access of the rural poor to social facilities and basic services; better links between areas of production and consumption; improved trans-border connectivity and access to port facilities in neighbouring countries; increased mobility of people and flows of goods. This will be achieved by expanding, improving and maintaining the roads network and providing a conducive regulatory framework for the sector within the structure of a sector wide approach (SWAP). Specifically: 1. Continued support for the country's Road Sector Development Programme (RSDP) ~ institutional strengthening and capacity building for sector institutions 2. Supplement regional projects e.g. rehabilitation and upgrading of a 387 km section of the Addis Ababa – Port of Djibouti corridor	SoC1	Transport and regional integration (transport, PS development and trade)	1. TRADE AND REGIONAL INTEGRATION	**Yes**
Environmental Cultural and Biological Heritage	Support would also be provided to assist Government in developing a supportive policy environment, institutional structure and promotion services through the Ethiopian Ministry of Culture and Tourism and building regional bodies responsible for restoring and preserving cultural heritage sites, as well as to restore and conserve National Parks and wildlife populations. The implementation modality for this intervention is to be jointly identified by the EC, Germany (GTZ) and the Netherlands, in close co-ordination with the World Bank and UNESCO.	NFS1	Environmental, cultural and biological heritage conservation	6. SOCIAL COHESION AND EMPLOYMENT	**Yes**
De-mining Programme	Current EC funds will cover costs until end-2008, it is expected that a second phase is needed. EC support under the Joint Response Strategy will be used to continue financing UNDP/EMAO operations, but will be considered in the context of the African Union (AU)'s participation in the area of de-mining	NFS2	De-mining actions	13. UNSPECIFIED	**No**

Macroeconomic support and governance	Support will be provided as a function of the progress made towards key objectives such as maintenance of macro-economic stability, achievement of public finance accountability and poverty reduction. This support will be delivered in the form of a two - three-year programmes. Funds may be disbursed in several tranches. If no disbursement is made, the non-disbursed amount is de-committed, credited to the NIP, and may be reprogrammed either for GBS/PBS or for one of the other cooperation programmes under the NIP. Such decisions can be taken in the context of the annual review. In the light of changing needs, it may be decided to reallocate funds from other application points in the NIP to this type of support.	SoC3	Macroeconomic support and governance (strengthening macro governance, democratic governance, CB in key institutions)	1. GOVERNANCE, DEMOCRACY, HUMAN RIGHTS AND SUPPORT FOR ECONOMIC AND INSTITUTIONAL REFORMS	**No**
India					
Sector Policy Support Programme Phase II for Sarva Shiksa Abhiyan (SSA) (Education)	GoI launched in 2001 a National Programme for Universal Elementary Education - Sarva Shiksha Abhiyan (SSA). It aims at achieving universal enrolment in and completion of elementary education (grades 1-8) over the period 2001-2010. EC, together with DFID and WB, has supported the SSA programme for the period 2002-2006, through budget support and provision of TA. EU-India Joint Action Plan, agreed at the EU-India Summit of September 2005, proposed to deepen development cooperation in the health and education sectors and to significantly enhance development cooperation to supplement the Indian programmes of SSA and NRHM	SoC2	Education Sector	9. HUMAN DEVELOPMENT	**No**
Policy Dialogue Support facility	Activities include exchange of know-how, expertise and best practice, seminars and workshops, conferences, studies and exchange/study visits. Emphasis should be on using European and Indian expertise and coupling this with mechanisms to strengthen transfer of know how. The themes will be relevant to each sector.	SoC3	Implementation of EU-India strategic partnership action plan	3. TRADE AND REGIONAL INTEGRATION	**No**
Institutional capacity Building for the Civil Aviation Sector in India	Activities include exchange of know-how, expertise and best practice, seminars and workshops, conferences, studies and exchange/study visits. Emphasis should be on using European and Indian expertise and coupling this with mechanisms to strengthen transfer of know how. The themes will be relevant to each sector.	SoC3	Implementation of EU-India strategic partnership action plan	3. TRADE AND REGIONAL INTEGRATION	**No**

Health Sector Support Programme India	The overall objective is to support the Government of India in implementing the RCH2/NRHM programme, to strengthen the system in its decentralisation efforts and assist institutions at different levels to participate fully in the proposed bottom-up approach. Specific objectives in the Health and Family Welfare programme are: strengthening decentralisation efforts at centre, state and district level; strengthen institutions at different levels to make them more accountable and to provide quality service delivery; increase community participation. Assisting the Government in these efforts will improve the services for the poor and contribute to the achievement of the MDGs, which is in line with the EU policies.	SoC1	Health sector	9. HUMAN DEVELOPMENT	**Yes**
EU-India Capacity-building Initiative for Trade Development (CITD)	Action Plan endorsed at the 2005 EU-India Summit in New Delhi, entailing a series of multi-sectoral activities. Financial support will be earmarked for the following initiatives: • Economic Sectoral Dialogues and Co-operation, including: o Economic Policy Cooperation in four priority sectors o Multi-sector Policy Dialogue Support Facility • Civil Society and Cultural Exchanges including: o Civil Society Exchanges including a new and revamped EU-India Cross Cultural Programme o Culture Fund • Academic Exchanges including: o Continuation of the co-operation in higher education o Creation of EU and Indian Studies Centres	SoC3	Implementation of EU-India strategic partnership action plan	3. TRADE AND REGIONAL INTEGRATION	**No**
EU India Study Centres	This action foresees establishing European Study Centres in India and Centres for Contemporary Indian Studies in the EU, aiming at developing and intensifying academic links, promoting knowledge on both regions and mutual understanding. These centres would support joint research, and teaching courses on contemporary political and economic themes in the EU and India.	SoC3	Implementation of EU-India strategic partnership action plan	3. TRADE AND REGIONAL INTEGRATION	**No**
Erasmus Mundus External Cooperation Window - India Strand (Contracts 2008 and 2009)	The Erasmus Mundus External Cooperation Window aims to continue to facilitate linkages between the EU and India in higher education and therefore to continue enlarging the spectrum of Indian students who have completed postgraduate studies in Europe. This will in turn contribute to the ongoing improvement of political, economic and cultural linkages between the EU and India and the strengthening of the EU-India Strategic Partnership.	SoC3	Implementation of EU-India strategic partnership action plan	3. TRADE AND REGIONAL INTEGRATION	**No**

Climate Change Awareness Programme	The initiative forms an integral part of the Action Plan and links the actions undertaken in the Environment and Energy sectors in a coherent manner. The initiative includes, among other steps, enhanced efforts at introducing clean technologies, a strengthening of the CDM, and enhanced research and development co-operation on technologies and measures to adapt to climate change.	SoC3	Implementation of EU-India strategic partnership action plan	3. TRADE AND REGIONAL INTEGRATION	**No**
Culture Fund	The creation of the Culture Fund foresees an increased awareness and visibility of India in the EU and of the EU in India, through a variety of means that are direct outcomes of the supported activities - such as the organisation of events, media coverage and the dissemination of specific news items, reports, etc. through articles, magazines, and other. There will be an exchange of know-how and expertise in a variety of technical fields directly related to the culture oriented events and actions, closer collaboration among institutions, government agencies and other civil society interlocutors.	SoC3	Implementation of EU-India strategic partnership action plan	3. TRADE AND REGIONAL INTEGRATION	**No**
Guyana					
INSTITUTIONAL STRENGTHENING OF THE NAO'S OFFICE	Support the Task Force in the NAO Office with the aim f facilitating implementation of EC-supported projects and programmes	NFS 2	Capacity - Assistance to NAO	1. GOVERNANCE, DEMOCRACY, HUMAN RIGHTS AND SUPPORT FOR ECONOMIC AND INSTITUTIONAL REFORMS	**No**
DEVELOPMENT OF LAND USE PLANNING	Aim is to unblock one of the bureaucratic obstacles to private sector investments, where domestic or FDI, by developing a master plan of land-use for different purposes (urban planning, transport, e.g. Linden-Lethem Road, environmental protection, etc) and to integrate the work done by DFID and IDB in some sub sectors of land register (mainly for housing purposes) into a comprehensive land-use register. The register would also help the commercial court in the area of collateral management	NFS 3	Growth potential - Development of land use master plan and comprehensive land use register	8. RURAL DEVELOPMENT, TERRITORIAL PLANNING, AGRICULTURE AND FOOD SECURITY	**Yes**
Sea Defence Sector Budget Support	Rehabilitation of Sea Defences in Guyana [7 ACP GUA 011] 1994, 12 MECU (US$14.76 M). Description: This project is a European Development Fund contribution within a multi-donor programme to rehabilitate sea defences. The other donors are the IDB, W.B., and CDB The EDF contribution will finance mainly the rehabilitation of 6 to 7 km in Regions 2 and 3 (east and west of Essequibo River). In a related project [7 ACP GUA 006], the EDF is providing 750,000 ECU (US$923,000) to finance a Technical Assistance Team for the implementing agency, the Sea Defence Project			4. INFRASTRUCTURE, COMMUNICATIONS AND TRANSPORT	**Yes**

	Execution Unit.				
Programme on Governance	Support as technical assistance to GoG, non-state actors and other critical stakeholders groups involved in promoting and advancing good governance to support national compliance with (good governance) indicators that would be associated with the 10th EDF incentive tranche. This intervention will also continue the EC's support to the democratic process, local government reform and assist the organisation of local elections	NFS1	Governance - support of democratic process	1. GOVERNANCE, DEMOCRACY, HUMAN RIGHTS AND SUPPORT FOR ECONOMIC AND INSTITUTIONAL REFORMS	**No**
Technical Co-operation Facility	To support studies related to 10th EDF, and to conduct audits and evaluations if not already provided for in the formulation, also for attendance at seminars and conferences to learn about EC procedures	NFS2	Capacity - Assistance to NAO	11. TECHNICAL COOPERATION FACILITY	**No**
Macroeconomic support to PRSP and MDG	Designed to cover current balance deficit, via direct non-targeted budget support, to release funds for social sectors	SoC2	Macroeconomic support in support of PRSP implementation	1. GOVERNANCE, DEMOCRACY, HUMAN RIGHTS AND SUPPORT FOR ECONOMIC AND INSTITUTIONAL REFORMS	**No**
Mali					
FACILITE DE COOPERATION TECHNIQUE (TCF) 10EME FED	Continuation of the existing TCF	NFS 6	TA and support to NAO	1. GOVERNANCE, DEMOCRACY, HUMAN RIGHTS AND SUPPORT FOR ECONOMIC AND INSTITUTIONAL REFORMS	**No**
DESANCLAVEMENT DU NORD DELTA DU NIGER,APPUI SECT. TRANPORTS	Supports the PRSP with regard to the development of infrastructure and the productive sector and the creation of jobs. Concentrates on the central area and north of Mali. The major interventions will relate to the infrastructure necessary for the development of the economic potential of these areas. The local communities will play a central part in the identification of the programmes to be carried out.	SoC2	Support for the economic development of the North and Niger delta regions	8. RURAL DEVELOPMENT, TERRITORIAL PLANNING, AGRICULTURE AND FOOD SECURITY	**Yes**
CONTRAT OMD POUR LE MALI - PPAB 2	Focuses on key elements of poverty reduction; social development and transportation	Not known	Not known	1. GOVERNANCE, DEMOCRACY, HUMAN RIGHTS AND SUPPORT FOR ECONOMIC AND INSTITUTIONAL REFORMS	**Yes**

APPUI DEVELOPPEMENT ECONOMIQUE ET SOCIAL DE LA CULTURE(MALI)	Specific goals: Development of identity and social cohesion by Structuring and development cultural industry / Professional development / Protection of artistic works and anti cyber-hacking / Protection and development of cultural inheritance ~ tourism	NFS1	Support to the culture sector	9. HUMAN DEVELOPMENT	**No**
Programme d'appui aux secteurs de production APE	Addresses Insufficiency of the investments public and private / Shortage of qualified manpower / Promote the development of competitive sectors / Support foreign direct investment / Regional integration and the Economic Partnership Agreement	NFS4	Support to productive sectors	8. RURAL DEVELOPMENT, TERRITORIAL PLANNING, AGRICULTURE AND FOOD SECURITY	**Yes**
Programme d'Appui à la Réforme Administrative, à la Décentralisation et au Développement Economique Régional (PARADDER)	Support for the implementation of reforms envisaged in the Policy Framework Document National Decentralization (DCPND) and Program Development Institutional (PDI), which include: improving access populations to basic services and public facilities, strengthening the local democracy, the creation of local wealth, the creation and maintenance of local jobs,	SoC1	Governance: support to reform of public sector	1. GOVERNANCE, DEMOCRACY, HUMAN RIGHTS AND SUPPORT FOR ECONOMIC AND INSTITUTIONAL REFORMS	**No**
Appui à la société civile					
Solde enveloppe hors concentration (station d'eau potable de Kabala 18M, TCF 2,5M, appui au développement du secteur de la culture 10,2M)			Other programmes on culture, civil society, water and energy	4. INFRASTRUCTURE, COMMUNICATIONS AND TRANSPORT	**Min**
Programme d'Appui à la mise en œuvre du contrat plan de l'office du Niger			Agricultural water ressources		
Programme d'Appui à l'Ordonnateur national du FED			Politique / planification économique et du développement		
Programme d'Appui à la Sécurité Alimentaire au Mali (PASA 5)			Sécurité alimentaire		

Solde enveloppe concentration (transport et développement économique des régions 53M, politique migratoire 5M)					
Papua New Guinea					
Rural Economic Development	To enhance access to and integration of rural communities into wider markets: Improvement of local development planning with stakeholder - Upgrading of infrastructure to widen access to economy in the rural world Improvement of access to market and economic opportunity information in rural areas Support to income-generating activities in agriculture, fisheries and forestry. Purpose: to improve livelihoods of rural populations by enhancing integration of rural communities into wider markets. Improvement of local development planning with stakeholders and Infrastructure upgrading. Improved access to market and economic opportunity information in rural areas. Technical support to income-generating activities in agriculture, fisheries and forestry. Strengthening of rural cooperatives systems and of the value added chain in marketing, such as development of local processing facilities to boost benefits for small towns.	SoC1	Rural economic development	8. RURAL DEVELOPMENT, TERRITORIAL PLANNING, AGRICULTURE AND FOOD SECURITY	**Yes**
INSTITUTIONAL CAPACITY BUILDING OF THE NAO SYSTEM	To support the National Authorising Officers Support Unit to prepare control the implementation and organise evaluation, audit and closures at finance, administrative and contractual levels of all European funded interventions	NFS1	Technical cooperation/NAO Support	1. GOVERNANCE, DEMOCRACY, HUMAN RIGHTS AND SUPPORT FOR ECONOMIC AND INSTITUTIONAL REFORMS	**No**
Human Resource Development Support	To enhance communities' capacity to take advantage of improved market access and conditions	SoC2	Human resource development	9. HUMAN DEVELOPMENT	**No**
Support for Non State Actors and Good Governance	To build on 9th EDF and pay attention to gender equity and responsible natural resources management	NFS	Support to NSA and good governance	1. GOVERNANCE, DEMOCRACY, HUMAN RIGHTS AND SUPPORT FOR ECONOMIC AND INSTITUTIONAL REFORMS	**No**

Technical Co-operation Facility	The Technical Cooperation Facility will support programming and facilitate start-up and implementation of the 10th EDF support, other future EC funding and *ad hoc* support to meet specific requirements, support for organisation of, participation in, training, workshops and seminars. Support may further be provided to studies to assess the prospects for budget support and for projects that may facilitate that, including support for strengthening public financial management, procurement and statistics.	NFS	Technical cooperation/NAO Support	11. TECHNICAL COOPERATION FACILITY	**No**
Trade Support	Support export-led growth	NFS	Trade related assistance	3. TRADE AND REGIONAL INTEGRATION	**No**
Philippines					
Trade related technical assistance project II	To facilitate trade by strengthening the capacity of the main public and private stakeholders concerned and alleviate the technical constraints for trade in order to make better use of the Philippines' rights under the multilateral trading system and opportunities offered by the EU, promote pro-poor growth and minimise the costs of economic integration. • Capacity of the Ministry of Trade and other relevant Ministries in trade policy matters relating to multilateral, regional and bilateral trade relations is increased • Capacity of government and private sector to address issues affecting EU Philippines trade flows, particularly in: standardisation, sanitary and phyto-sanitary requirements, services, customs, competition etc is strengthened • Conditions for domestic and foreign investment are improved • More competitive SME exporting community in selected economic sectors	NFS3	Trade related assistance	3. TRADE AND REGIONAL INTEGRATION	**No**
Support to MTF - Reconstruction and Development Programme	See below	NFS1	Support to the Mindanao Peace Process	1. GOVERNANCE, DEMOCRACY, HUMAN RIGHTS AND SUPPORT FOR ECONOMIC AND INSTITUTIONAL REFORMS	**No**
Support to MTF - Reconstruction and Development Programme	See below	NFS1	Support to the Mindanao Peace Process	1. GOVERNANCE, DEMOCRACY, HUMAN RIGHTS AND SUPPORT FOR ECONOMIC AND INSTITUTIONAL REFORMS	**No**

Support to MTF - Reconstruction and Development Programme	The overall objective of the Mindanao Trust Fund (MTF) is to contribute to peace and development in the Philippines. The programme purpose will be the reconstruction and development of conflict-affected areas in Mindanao. Sector priority areas will be: • Governance and institutions • Economic status and livelihood requirements • Social services • Infrastructure: construction of roads and bridges, • Finance and private sector The overall objective of the Mindanao Trust Fund (MTF) is to contribute to peace and development in the Philippines. The programme purpose is the reconstruction and development of conflict-affected areas in Mindanao focussed on the restoration of social services. MTF works through the Bangsamoro Development Agency, which has had its management capacity boosted towards supporting LGUs and other development partners – who in turn are beginning to find and apply resources to implement community sub-projects. Priority areas: • Governance and institutions – particularly conflict resolution • LGUs and partner implementation capacities • Economic status of those affected by conflict • Improved livelihoods of both rural and urban poor • Infrastructure: construction of roads and bridges • Finance and private sector	NFS1	Support to the Mindanao Peace Process	1. GOVERNANCE, DEMOCRACY, HUMAN RIGHTS AND SUPPORT FOR ECONOMIC AND INSTITUTIONAL REFORMS	**No**
Health Sector Policy Support Programme - Phase II	To increase the access to and utilisation of equitable and efficient, quality health services and to consolidate and further develop health sector reform achievements in Local Health Systems Development; Health Financing; Public Health; Hospital reforms; Regulation; health sector governance; human resource strategies; monitoring and evaluation.	SoC1	Support to the delivery of basic social services - health	9. HUMAN DEVELOPMENT	**Yes**
Dialogue on Governance: Strategic Projects Facility	Drawing on past experience, support will be given to the Dialogue on Governance between State and non-State actors through an even more focused Strategic Projects Facility, which will aim to boost reform efforts and good governance and to contribute to enhancing the participation and capacities of non-State actors in such reforms. This Dialogue will thus contribute to the core objectives of the CSP, and its mechanism, the SPF will complement appropriately other EC funding mechanisms: it provides non-state perspectives on issues addressed through budgetary support programmes; it extends support to sectors not or no longer covered under the NIP, but still deemed relevant such as education and rural development; it can also replicate best practices stemming from past EC support.	NFS2	Governance	1. GOVERNANCE, DEMOCRACY, HUMAN RIGHTS AND SUPPORT FOR ECONOMIC AND INSTITUTIONAL REFORMS	**No**

Swaziland					
TECHNICAL COOPERATION FACILITY II	Continuation of the existing TCF and also covers a reserve for insurance against possible claims and to cover cost increases and contingencies.	NFS4	TA	11. TECHNICAL COOPERATION FACILITY	**No**
Human Development (Health and Education Sectors)	Capacity building to ensure more effective coordination, planning and management in the health and education sectors, particularly for human resources. Improvement of employment and training policies for health staff to reduce the shortage of specialised staff due to health workers leaving the country. Improvement of equitable access to health and education services and facilities, with a focus on Orphaned and Vulnerable Children (OVCs) and gender equity with special consideration of the HIV/AIDS situation. Reinforcement of the primary health care system to ensure access for all through rehabilitation of rural clinics, including basic laboratory services and the supply of essential pharmaceutical products and materials. Activities to prevent and treat poverty- related diseases such as HIV/AIDS, STDs tuberculosis and Malaria. Supporting special programmes such as Family Planning and Reproductive Health, Mother to Child Infection and Infant Health in order to combat poverty. Activities to reinforce, where necessary, the interventions started under the 9th EDF education programme at pre-primary, and primary levels and in technical and vocational education and training, with the overall objective of increasing access to and quality of the education system. Support to the development and implementation of the draft Education Sector Strategic Plan 2007-2012. Contribution to improved aid effectiveness through the Education Sector Technical Working Group.	SoC 1	Health sector, Education Sector	9. HUMAN DEVELOPMENT	**Yes**
Water supply, sanitation, irrigation	The detailed actions to be implemented in order to achieve the expected results will be defined in a further stage, after feasibility studies would have been carried out in order to determine the most appropriate form of intervention. However, it has already been identified that rural areas are where the need for safe water supply is most dramatic. The activities will focus on infrastructure rather than on policy development and capacity building. The geographic focus will be on the Lebombo region and Eastern Shiselweni in particular. The second phase of the Lower Usuthu Irrigation Project (LUSIP), currently funded by the 7th and 8th EDF will also be implemented; it will concern mainly the extension of the irrigation facilities to an area of approximately 5,000 ha. The irrigable land developed under the phase 1 and phase 2	SoC 3	Improvement of supply of services in WSS	4. INFRASTRUCTURE, COMMUNICATIONS AND TRANSPORT	**Yes**

	of LUSIP, totalling 11,500 ha. will be planted mainly with sugar cane, and with crops aiming to increase food security in the Country. As part of LUSIP, potable water and sanitation facilities will be extended to some 30,000 people. A reconnaissance- level study is currently being carried out on the Mkondvo River Basin which potentially has an irrigable area of approximately 6,000 ha.				
EPA/ SPS support	Strengthen the capacity of the country to benefit from trade and the implementation of EPAs with particular attention on SPS conditions. Capacity building in the commerce, trade and industry sectors to ensure the most advantageous use is made of trade and the implementation of EPAs	NFS1	EPA support	3. TRADE AND REGIONAL INTEGRATION	**No**
Governance	Provide institutional support and capacity building to bodies and organisations concerned; Improve awareness of governance issues through dialogue and information; Enhance revenue collection, budget planning and expenditure control systems; Enhance capacity to provide accessible, reliable statistics; Sector based creation of Public Finance Management (PFM) indicators; Assess readiness and prepare for the implementation of sector- and budget support programmes	NFS 2	Governance	1. GOVERNANCE, DEMOCRACY, HUMAN RIGHTS AND SUPPORT FOR ECONOMIC AND INSTITUTIONAL REFORMS	**No**
Support to Non state actors	May cover activities such as: capacity building, advocacy, research, awareness raising, monitoring and delivery of services to the population.	not known		1. GOVERNANCE, DEMOCRACY, HUMAN RIGHTS AND SUPPORT FOR ECONOMIC AND INSTITUTIONAL REFORMS	**No**
Central America Region					
Second Programme of Support to Central American Regional Integration	It is based on three focal sectors: 1. Strengthening the institutional system for regional integration 2. Support for economic integration process - consolidating the customs union and related harmonised and common policies 3. Strengthening regional governance and security matters and three non-focal sectors: • Human rights and democracy • Environmental and Natural Resources including Disaster Prevention and Preparedness • Decentralised cooperation and non-state actors	SoC 1	Strengthening the institutional system for regional integration	3. TRADE AND REGIONAL INTEGRATION	**No**

Consolidating the customs union and related harmonised and common policies	The objective of this component of the strategy is to consolidate implementation of the Central American customs union in line with the Central American Plan of Action for Economic Integration, as well as with the decisions taken by Presidents in Panama, in March 2006.	SoC 2	Support for economic integration process - consolidating the customs union and related harmonised and common policies	3. TRADE AND REGIONAL INTEGRATION	**No**
Strengthening regional governance and security matters	The programmes associated with this focal area should contribute to crime prevention, and could encompass activities such as: improvement of mutual knowledge of the Member States' legal and regulatory systems; joint customs surveillance operations; development of a regional customs information system on movements across borders; regional cooperation projects between police and judicial authorities; exchanges of best practices for criminal profiling and for preventing and fighting against illegal trafficking; and studies on how to strengthen further the effectiveness of law enforcement at regional level. Priority shall be given to trans-regional cooperation, on the basis of a clear regional added value and political will (capacity building, strengthening the institutional and legislative framework and policy design).	SoC 3	Strengthening regional governance and security matters	1. GOVERNANCE, DEMOCRACY, HUMAN RIGHTS AND SUPPORT FOR ECONOMIC AND INSTITUTIONAL REFORMS	**No**

T 1 C (ii) Programme and Project Data taken from CSPs/NIPs etc ~ climate change risk reasoning

SETOR AND PROJECT ASSESSMENT					BUDGET ANALYSIS			
KEY: Yes - indicates need to assess this aspect of the programme/project as it is likely to pose some risk **No** - indicates confidence that this aspect is resilient to CC **Min** - indicates more info is needed. **YES** or **NO** in capitals indicates overall assessment under expert judgement with current data	**PROJECT EFFECTIVENESS - EFFECTS OF CLIMATE IMPACTS ON PROJECT DELIVERABLES AND MEDIUM-TERM OUTCOMES AND BENEFITS**	**PROJECT EFFICIENCY UNDER CLIMATE RISK DURING IMPLEMENTATION - EFFECTS OF CLIMATE CHANGE IMPACTS ON PROJECT PARTNERS, INPUTS, NECESSARY ASSETS AND INTENDED BENEFICIARIES**	**PROJECT - VE SUSTAINABILITY - POTENTIAL HARM PRODUCED BY, OR COLLATERAL TO, THE PROJECT THAT COULD INCREASE LOCAL VULNERABILITIES**	**PROJECT + VE SUSTAINABILITY - NO BENEFITS FOR VULNERABILITY REDUCTION and NO OPPORTUNITIES OPENING TO THE PROJECT**				
OPERATING IN SECTOR VULNERABLE TO CLIMATE VARIABILITY / EXTREME WEATHER / FUTURE CHANGE	**(i) Are the expected impacts of climate change, variability or extreme weather likely to directly/indirectly affect the planned deliverables at the end of the project (after implementation) and delivery continued benefits (within a 5 yr period after EOP)?**	(ii) Does expected climate change make up a risk that could affect the outputs and components of the initiative? Is realised climate risk likely to directly/indirectly worsen the vulnerability of beneficiaries, ecosystems and related assets? ? Does climate change make up a business continuity risk?	(iii) What potential is there that this project is mal-adapted and may lose relevance within a climate-changed context? Is there potential harm produced by, or related to the project, that could increase local vulnerabilities of final beneficiaries, targeted communities and systems?	(iv) There are no project outcomes that might benefit the situation by reducing vulnerabilities of livelihoods and assets? Likely that no impacts of CC will offer opportunities to stakeholders that improve the project situation and help solve stakeholders' problems i.e. that can be turned into new goals and future outcomes.	COMPOSITE OVERALL ASSESSED PROJECT VULNERABILITY	ALLOCATED	VALUE OF THE PORTION OF TOTAL CSP BUDGET ASSESSED AS UNDER SOME CLIMATE RISK	% OF TOTAL CSP UNDER SOME CLIMATE RISK

BRAZIL								
Yes	**No** - not within project timescales. Ongoing efforts to improve access to lands and to promote greater diversity in benefits from forests are not likely to be hindered by CC impacts.	**Yes** - forest resources such as NTFPs may be impacted by Amazonian drying in future decades. Short term - may be damaged by climate variability / droughts. In medium term (> 15 years) forest and agri-production systems may be significantly affected by all kinds of weather events (floods, droughts, wildfires). Activities likely to diminish some human influences - felling forests and setting fires while converting land use to livestock and crops - so reduce the specific vulnerability of fire flash points of drought-stressed forest stands.	**No** - current vulnerabilities should become reduced through sensitive development efforts that generate more values and benefits for forest-based user communities.	**No** - it is likely that opportunities do exist. The international perception of climate change as a medium-term threat to Amazon forest health is an opportunity for intelligent governments to obtain support that reduces the vulnerabilities of forests and their human inhabitants.	**YES**	**18,300,000**	**18,300,000**	
No	**No** - cannot be thought likely	**No** - cannot be thought likely	**No** - cannot be thought likely	**No** - cannot be thought likely	**NO**	3,050,000	**0**	
NO	**No** impacts can be expected. Better bilateral policy dialogues cannot be considered as affected by climate risk.	**No** - cannot be thought likely	**No** - cannot be thought likely	**No** - cannot be thought likely	**NO**	9,150,000	**0**	
No	**No** - cannot be thought likely	**No** - cannot be thought likely	**No** - cannot be thought likely	**No** - cannot be thought likely	**NO**	30,500,000	**0**	
						61,000,000	**18,300,000**	**30**
EGYPT								
					NO	17,000,000	**0**	
Yes	**Yes -** CC impacts on infrastructure are expected within shorter time frames	**No -** final beneficiaries are not - by their nature - sensitive to climate impacts.	**No -** Promotion of energy efficiency and new and renewable energy sources likely to supply adaptation/mitigation synergies. Building capacities and improving infrastructure design standards is likely to reduce climate risk levels of new transport linkages and assets that are built.	**Yes** - potential does exist to add in adaptation capacity and resilience building elements within the broad cross sector programme.	**YES**	**80,000,000**	**80,000,000**	

Yes	**Yes** - Rural areas in Egypt will be highly affected by CC consequences (sea level rise, higher temperatures, less water): thus, variability or extreme weather can affect the results of this programme by for example reducing agricultural productivity	**Yes** - Assets and livelihoods of communities settled on river flood plains and in the Nile Delta are under very high risk of climate impacts. Moreover, all the farmers will be deeply affected if an extreme event occurs during the project's implementation, as with droughts for instance.	**No** - project not likely to worsen risks; rather it is likely to be planned to reduce vulnerabilities by promoting innovative sustainable practices.	**Yes -** potential does exist to add in adaptation capacity and resilience building elements	**YES**	**10,000,000**	**10,000,000**	
No	**No -** the deliverables are too far removed in relation to dependency on natural assets.	**No -** final beneficiaries are not - by their nature - sensitive to climate impacts	**No** - cannot be thought likely	**Yes** - this project will improve governance which is an important component of building adaptation capacity	**NO**	3,000,000	**0**	
Yes	**Yes** - The Nile Delta region in Egypt (the target of this program) will be highly affected by CC (sea level rise, higher temperatures, less water): thus, this can easily have effect on the results of this programme	**No -** final beneficiaries are not - by their nature - sensitive to climate impacts	**No** - programme is not likely to worsen risks; rather it is likely to be planned to reduce vulnerabilities	**Yes** - this project will improve water and wastewater institutions and agencies which are important components of building adaptation capacity	**YES**	**29,000,000**	**29,000,000**	
No	**Yes -** CC impacts on various sectors which are targets of this programme are expected	**No** - some impacts of CC could be projected to affect energy and transport infrastructure but those risks are not owned by this project	**No -** unlikely that negative impacts will affect local vulnerability	**Yes** - Improved environmental standards and renewable energy uptake likely to supply adaptation/mitigation benefits. Supported projects offer opportunities to 'climate-proof' new infrastructure, and improve polices and processes. Improvement of environmental standards is likely to allow for consideration of climate risk issues.	**NO**	20,000,000	**0**	

No	No - the deliverables are too far removed in relation to dependency on natural assets.	No - final beneficiaries are not - by their nature - sensitive to climate impacts	No - cannot be thought likely	No - cannot be thought likely	NO	17,000,000	0	
Yes	Yes - this sector-level support has sufficient components located in exposed rural areas (health clinics) that may be affected by climate impacts:	Yes - this programme has sufficient beneficiaries located in exposed rural areas (health clinics)	No - cannot be thought likely	Yes - but minimal - Extreme events (such as droughts) may decrease school attendance.	YES	110,000,000	110,000,000	
Yes	Yes - Extreme events (such as droughts) may decrease school attendance. On a longer term, sea level rise may endanger school infrastructures in the Nile Deltas.	Yes - if extreme events (droughts, water deprivation) occur during the programme's implementation	No - cannot be thought likely	No	YES	120,000,000	120,000,000	
Yes	Yes - but the effects of climate change are minimal like faster depreciation of materials due to heat, etc	No - cannot be thought likely	No - cannot be thought likely	Yes - CC is boosting the renewable energies and energy efficiency market and this project is helping improve the Egyptian energy sector. This sector is seen more and more as relevant by Egyptian authorities for mitigation	NO	20,000,000	0	
No					NO	20,000,000		
No					NO	9,000,000		
No					NO	20,000,000		
No					NO	10,000,000		
No					NO	3,000,000		
No					NO	70,000,000		
No					NO	10,000,000		

						568,000,000	**349,000,000**	**61**
ETHIOPIA								
No	**No** - cannot be thought likely	**No** - cannot be thought likely	**No** - cannot be thought likely	**No** - cannot be thought likely	**NO**	5,000,000	**0**	
Yes	**Yes** - typically rural development programmes are likely to be affected by CC impacts.	**Yes** - soil and water conservation activities are almost certainly designed to reduce disaster and climate risk vulnerabilities in rural areas. Rural feeder road rehabilitation is highly likely to improve social and economic resilience, for example through offering opportunities for rural business diversification.	**No** - cannot be thought likely	**Yes -** programme is likely to enhance the sustainability of the livelihoods of beneficiaries, as this programme is planned with the central goal of reducing vulnerabilities and improving social safety nets and the connectedness of target communities within wider transport and commercial relations.	**YES**	130,000,000	**130,000,000**	
No	**No** - cannot be thought likely	**No** - cannot be thought likely	**No** - cannot be thought likely	**Yes** - the potential equity, democracy and productivity benefits of this programme are likely to generate social resilience benefits under any future severe climate change impacts for example prolonged droughts, given that drought impacts are often worsened by poor local and national governance.	**NO**	3,000,000	**0**	
Yes	**Yes** - typically rural development programmes are likely to be affected by CC impacts.	**Min**	**No** - cannot be thought likely	**Yes**	**YES**	50,000,000	**50,000,000**	

Yes	Yes - typically forestry and biodiversity/rural development programmes are likely to be affected by CC impacts.	Min - uncertain timescales - agro/bio diversity may be impacted and CC impacts may affect forest integrity	No - cannot be thought likely	Yes - this project would likely have climate change issues under careful monitoring.	YES	6,000,000	6,000,000	
Yes	Yes - infrastructure under Intervention Area (i) is likely to be under medium term risks from climate change.	Min	No - cannot be thought likely	No - cannot be thought likely	YES	200,000,000	200,000,000	
Yes	Yes - the biodiversity resources programmed for protection may come under climate impacts in the medium term	Min	No - cannot be thought likely	Min	YES	10,000,000	10,000,000	
No	No - cannot be thought likely	No - cannot be thought likely	No - cannot be thought likely	No - cannot be thought likely	NO	5,000,000	0	
No	No - cannot be thought likely	No - cannot be thought likely	No - cannot be thought likely	No - cannot be thought likely	NO	244,000,000	0	
						653,000,000	396,000,000	60.64
INDIA								
No	No - this type of high level sector support is unlikely to be directly impacted by CC with detectable attribution.	No - cannot be thought likely	No - cannot be thought likely	Yes - in general education benefits adaptation capacity	NO	70,000,000	0	
No	No - cannot be thought likely	No - cannot be thought likely	No - cannot be thought likely	No - cannot be thought likely	NO	10,000,000	0	
No	No - cannot be thought likely	No - cannot be thought likely	No - cannot be thought likely	Yes - project includes an environment component to promote regulations and practices targeting reduction.	NO	12,500,000	0	

Yes	**Yes** - components located in exposed rural areas (health clinics) might be exposed to some climate impacts after implementation.	**Yes -** this sector-level support has sufficient components located in exposed rural areas (health clinics) that some climate impacts might occur during implementation.	**No** - cannot be thought likely	**Yes**	**YES**	110,000,000	**110,000,000**	
No	**No** - cannot be thought likely	**No** - cannot be thought likely	**No** - cannot be thought likely	**No** - cannot be thought likely	**NO**	7,500,000	**0**	
No	**No** - cannot be thought likely	**No** - cannot be thought likely	**No** - cannot be thought likely	**No** - cannot be thought likely	**NO**	10,400,000	**0**	
No	**No** - cannot be thought likely	**No** - cannot be thought likely	**No** - cannot be thought likely	**No** - cannot be thought likely	**NO**	28,600,000	**0**	
No	**No** - despite the topic of this programme, it is unlikely to be hit by CC impacts during delivery.	**No** - cannot be thought likely	**No** - project is likely to significantly reduce vulnerabilities if results are delivered successfully	**Yes** - project is likely to significantly reduce vulnerabilities once results are delivered successfully	**NO**	8,500,000	**0**	
No	**No** - cannot be thought likely	**No** - cannot be thought likely	**No** - cannot be thought likely	**No** - cannot be thought likely	**NO**	2,500,000	**0**	
						260,000,000	**110,000,000**	**42**
GUYANA								
No	**No** - cannot be thought likely	**No** - cannot be thought likely	**No** - cannot be thought likely	**No** - cannot be thought likely	**NO**	1,000,000	**0**	
Yes	**No.** While CC may affect Guyanan assets, there is no likely anticipated direct effect on expected deliverables. The relationship between the project and climate risks is mediated by partner ministries, so is at a higher level than any potential in-the-field climate impacts on programme outputs.	**Yes -** much of Guyana's productive coastal areas are vulnerable to flooding and housing assets may be under risk.	**No** - disbenefits are unlikely.	Yes - The project seeks to increase the security of land tenure and to improve the match between land use and land capabilities. By reducing the exposure of livelihoods and assets, it would be expected to reduce vulnerabilities of final beneficiaries due to otherwise inappropriate	**YES**	3,000,000	**3,000,000**	

				settlement and management.				
Yes	Yes - in some time periods the infrastructure will be tested to limits of design tolerance, perhaps long after infrastructure creation	No - unless events with negative impacts occur during infrastructure creation	No - the deliverables are planned to reduce vulnerabilities due to sea level rise and storm surges etc	Yes	YES	14,800,000	14,800,000	
No	No - cannot be thought likely	No - cannot be thought likely	No - cannot be thought likely	No - cannot be thought likely	NO	1,000,000	0	
No	No - cannot be thought likely	No - cannot be thought likely	No - cannot be thought likely	No - cannot be thought likely	NO	1,000,000	0	
No	No - cannot be thought likely	No - cannot be thought likely	No - cannot be thought likely	No - cannot be thought likely	NO	30,200,000	0	
						51,000,000	17,800,000	35
MALI								
No	No - cannot be thought likely	No - cannot be thought likely	No - cannot be thought likely	No - cannot be thought likely	NO	2,500,000	0	
Yes	Yes - typically rural development programmes are likely to be affected by CC impacts.	Min	Min	Yes - not likely to worsen the context - rather is likely to be planned to reduce vulnerabilities.	YES	165,000,000	165,000,000	
Yes	Yes - typically rural development programmes are likely to be affected by CC impacts.	Min	No - likely to be planned to reduce vulnerabilities.	Min	YES	148,000,000	148,000,000	
No	No - cannot be thought likely	No - cannot be thought likely	No - cannot be thought likely	Yes - not likely to worsen the context - rather is likely to be planned to reduce vulnerabilities.	NO	4,800,000	0	
Yes	Yes	Min	Min	Min	YES	5,000,000	5,000,000	
No	No - cannot be thought likely	No - cannot be thought likely	No - cannot be thought likely	No - cannot be thought likely	NO	75,000,000	0	

					NO	7,000,000		
Min	No - cannot be thought likely	No - cannot be thought likely	No - cannot be thought likely	No - cannot be thought likely	NO	30,700,000	0	
					NO	30,000,000		
					NO	2,000,000		
					NO	5,000,000		
	Yes – the road component likely to be affected				YES	58,000,000	53,000,000	
						533,000,000	371,000,000	70
PAPUA NEW GUINEA								
Yes	Yes - Infrastructure is under potential risk. The test will be during implementation; in the siting, design and construction control of the infrastructure. Similarly, agriculture, fisheries and forest are nominally exposed to CC but the risk itself depends on the precise nature of the intervention. Key assumption is that District level planners are able to understand the importance of disaster risk mitigation and how climate change could affect settlement patterns, human health and opportunities for crops and the sustainability of livelihoods activities. In-depth training in DRR and CRM is likely to provide significant benefits in terms of problem analysis in grant applications and	Yes - The ability of project partners and/or beneficiaries to participate would be due to physical changes due to CC e.g. landslides, flooding or droughts. Landslides could impede to travel, and this is already a significant issue that affects current commerce. Droughts and flooding could reduce farm yields and rural incomes. Hazard mapping at District level would help ensure that investments were sited in less exposed settings. Farm diversification, increased assets and improved local processing will mean that the livelihoods of beneficiaries become more resilient.	No -Building infrastructure and supporting actions in agriculture, fisheries and forestry are designe	Yes - Project seeks to build the resilience of rural livelihoods by building infrastructure and by supporting actions in agriculture, fisheries and forestry. The better integration of communities with markets is likely to lead to greater ability of rural communities to respond to opportunities opened by climate change, such as the ability to grow different crops due to the warming of what have been cool elevations.	YES	71,500,000	71,500,000	

	climate/disaster risk management during subsequent project implementation.							
No	**No** - cannot be thought likely	**No** - cannot be thought likely	**No** - cannot be thought likely	**No** - cannot be thought likely	**NO**	4,490,000	**0**	
No	**No** - cannot be thought likely	**No** - cannot be thought likely	**No** - cannot be thought likely	**No** - cannot be thought likely	**NO**	39,000,000	**0**	
No	**No** - cannot be thought likely	**No** - cannot be thought likely	**No** - cannot be thought likely	**No** - cannot be thought likely	**NO**	5,000,000	**0**	
No	**No** - cannot be thought likely	**No** - cannot be thought likely	**No** - cannot be thought likely	**No** - cannot be thought likely	**NO**	8,500,000	**0**	
No	**No** - cannot be thought likely	**No** - cannot be thought likely	**No** - cannot be thought likely	**No** - cannot be thought likely	**NO**	6,000,000	**0**	
						134,490,000	**71,500,000**	**53**
PHILIPPINES								
No	**No** - cannot be thought likely	**No** - cannot be thought likely	**No** - cannot be thought likely	**No** - cannot be thought likely	**NO**	6,000,000	**0**	
No	**No** - cannot be thought likely	**No** - cannot be thought likely	**No** - cannot be thought likely	**No** - cannot be thought likely	**NO**	1,000,000	**0**	
No	**No** - cannot be thought likely	**No** - cannot be thought likely	**No** - cannot be thought likely	**No** - cannot be thought likely	**NO**	2,000,000	**0**	

No	**No** - CC impacts are likely to increasingly affect the region, particularly the coastal communities who exploit marine resources. While CCV is not likely to directly damage the continued flow of MTF benefits themselves, it may increasingly affect the natural assets themselves, via debris flooding in deforested catchments, landslides and droughts. Conflict-related difficulties in achieving wider uptake of the good-quality local governance (that have been fostered during training and development of community investment plans) will be a continued critical risk, far out-stripping any CCV risks to the medium term.	**No** - Within the lifetime of the MTF programme, it is unlikely that large-scale CCV impacts will affect the direct delivery of results and activities, with far larger risks stemming from renewed outbreaks of conflict. The Mindanao landscape of large banana etc plantations on which target groups work as labourers means that few people count on basic access to significant areas of their own land, meaning that livelihood options open for MTF to support better livelihoods are very restricted by this highly unequal land distribution. This also means that MTF's potential vulnerability-reductions results are much more likely to be limited by this basic context, than by any CCV impacts.	**No** - there is almost no likelihood that the project will worsen vulnerabilities. It seeks to alleviate the impacts of social and economic conflict, while being unable to directly reduce inequity in land tenure. There has also been a case where due to presence of the threatened marine dugong DENR has enforced a 500 m exclusion zone strictly via net size, further cutting options for local people.	**No** - There is some potential to take advantage of short-term CV benefits, but the key issue is the limited basic access to livelihoods resources.	**NO**	9,000,000	**0**	
Yes	**No -** components located in exposed rural areas (health clinics) might be exposed to some climate impacts after implementation.	**No** - As defined in the reviewed sample of Provincial Rationalisation Plans, infrastructure are likely to be functional throughout design life and lessen vulnerability of beneficiaries. The project component under most CCV risk is the Rural Health Units many of which are being upgraded into two kinds of Obstetric Health Facility. This is codified by DoH via Rationalisation Plans that mandate a mix of (mostly) rehabilitation and newly built facilities. Flood and landslide risks to health facilities are likely to be overcome. Appropriate siting and building design may be assumed to be effective to a certain extent (this is a key assumption) • Construction CC best practice through Building Regulations and Inspection • Community-based agreement	**No** - No potential for mal-adaptation. No potential increase of local vulnerabilities of final beneficiaries, targeted communities or systems.	Yes - Infrastructure should reduce vulnerability of livelihoods and assets. Double role of health facilities in disaster evacuation roles means that the improved infrastructure is likely to improve immediate response capacities. Due to increased weather-related disease spread is likely to mean that the benefits of the HSPSP continue to have high relevance.	**NO**	36,000,000	**0**	

		including vulnerable groups such as indigenous peoples						
No	Min	No - cannot be thought likely	No - cannot be thought likely	Min	NO	6,500,000	0	
						60,500,000	0	0
SWAZILAND								
No	No	No - cannot be thought likely	No - cannot be thought likely	No	NO	2,500,000	0	
Yes	Yes - components located in exposed rural areas (health clinics) might be exposed to some climate impacts after implementation.	Min - but depends on details of the project beneficiaries and exposures of related assets	No - cannot be thought likely	Min	YES	21,000,000	21,000,000	
Yes	Yes - any water components located in exposed rural areas are highly likely to be exposed to some climate impacts during and after project implementation.	Min - but depends on details of the project beneficiaries and exposures of related assets.	No - cannot be thought likely	Min	YES	29,000,000	29,000,000	
No	No - cannot be thought likely	No - cannot be thought likely	No - cannot be thought likely	No - cannot be thought likely	NO	1,300,000	0	
No	No - cannot be thought likely	No - cannot be thought likely	No - cannot be thought likely	No - cannot be thought likely	NO	8,200,000	0	
No	No - cannot be thought likely	No - cannot be thought likely	No - cannot be thought likely	No - cannot be thought likely	NO	1,000,000	0	
						63,000,000	50,000,000	79

CA REGION								
No	**No** - this programme intrinsically relates to a wide inter-country agenda that has little specific in-country involvement with sensitive risk receptors such as human communities and ecosystems.	**No** - will CC is expected to affect this vulnerable region, but the damages to livelihoods are diffuse and make up a medium term threat to social integrity across these countries.	**No** - The environmental management and DRR components of this programme are designed to reduce social and economic vulnerabilities to climate events, encourage learning across countries, foster best-practice and to improve responses to CC/disasters regionally.	Yes - greater priority to investments in DRR could aid further reductions in regional vulnerability to disasters.	**NO**	15,000,000	**0**	
No	**No** - cannot be thought likely	**No** - cannot be thought likely	**No** - cannot be thought likely	**No** - cannot be thought likely	**NO**	47,000,000	**0**	
No	**No** - cannot be thought likely	**No** - cannot be thought likely	**No** - cannot be thought likely	**No** - cannot be thought likely	**NO**	8,000,000	**0**	
						70,000,000	**0**	**0**

T. 2 A (i) Project Level Screening – Annex 7 General Comments

Environmental Handbook Annex 7: Project Screening

Comments in yellow are the result of discussion with two Delegations: Philippines and Papua New Guinea and the judgements of the Study Team.

Annex 7. Project Environmental Screening

This annex describes screening procedures to aid decision making on the requirement for an Environmental Impact Assessment and to guide appropriate responses to climate-related risks and constraints. As well as screening for undesirable effects, the process also provides for the early identification of opportunities. The screening is presented in three parts, with a summary sheet at the end to record the results.

- Part 1: provides a screening list and a questionnaire to determine whether a project requires an Environmental Impact Assessment (EIA) or not.
- Part 2: provides a set of questions to screen the project from a climate risk perspective to determine whether it requires further in-depth climate risk assessment or not, irrespective of the outcome of Part 1.
- Part 3: provides a form to summarise the results obtained in section 1 and 2 to be provided as an annex to the *'Project Identification Fiche'* with the documentation submitted to the Quality Support Group.

The table below provides a list for the EC co-operation focal areas, mainly derived from information given in the EU EIA Directive[1] and World Bank[2] guidance. These classification lists should be used in combination with national legislation requirements in order to determine whether an EIA is required[3].

Part 1: Screening for Environmental Impact Assessment (EIA) (removed)

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[1] See http://ec.europa.eu/comm/environment/eia/eia-legalcontext.htm

[2] World Bank Environmental Source Book Update, Environmental Screening, Nov 1996.

[3] Reference can be made to Annexes 1 and 2 in the EU EIA Directive for themes that are not covered here (e.g. industrial projects).

Part II: Climate Risk Screening

ORIGINAL QUESTION 1 - Will the project be carried out in a geographical area and a sector of activity considered to be particularly exposed to the effects of climate variability and change?

Question 1 included separate questions about the project's relationships with natural geography, and with certain sectors. This is not useful because the answer could be yes to one, and no to the other. It also asks about **'particular exposure' to effects'**. This question has now been split into 3 questions.

		Yes	More information needed = MIN Category is proposed	No
1	**Will the project be carried out in certain geographical areas[4] ?**	The phrase "...*carried out...*" requires a judgement as to the extent of being "*carried out".* This means that the author of the screening could question if '*carried out*' refers to the degree in which the project carries out activities in the specific types of area: i.e. "*largely carried out" = almost all of the activities* **or** is only "*slightly carried out*" = only a few of the activities are performed in the sensitive areas May be better to phrase as '**certain types of geographical area'** as the term '**certain geographical areas'** is most commonly used to refer to – for example – the *northern* areas of Vietnam as opposed to the *southern* areas. This question also suggests that projects carried out without restriction or application to specific geographical areas, *i.e.* those that do not have direct effects on environmental resources such as sector-support programmes are therefore not judged as requiring a yes answer – even if, say the work involved support nationally to an irrigation programme in agriculture. Could be better to allow for a text box in which the answer can be qualified with an explanation of the answers.		

[4] High mountainous regions, not necessarily as vulnerable as river deltas and coastal regions
Regions depending on water from mountainous regions, Almost all gravity-flowing water comes from higher up *i.e.* mountains in someone's definition
Flood plains, River deltas, Coastal regions, Small island states, Arid and semi-arid regions, Tundra regions;
Add: small islands (but not SIDS *per se*) could also refer to significant extension of coastlines

		Yes	More information needed = MIN Category is proposed	No
1.1	**Text justification**	Please set out the evidence for Question 1		
2	**Will the project be carried out in certain sectors of activity**[5]	Omissions: Industrial Development, Mining, Land-Use Planning		
2.1	**Text justification**	Please set out the evidence for Question 2		

This list requires review to:

(i) make list conform to EU consensus sectors;

(ii) decide which of the overall EU consensus sectors should be set out as typically vulnerable

(iii) define which **sub-sectors** within the EU consensus sectors should also be added-in as **particularly sensitive**

If certain sub-sectors are defined, in what form should these finer distinctions be laid out?

We would propose that a useful addition would be a table, as in the EIA screening, that defines which sub-sectors are considered sensitive to CV, within the umbrella of each EU consensus sector. This could draw on the analyses made in the Sector Scripts, and would make the Climate Risk Screening have the same level of rigour as the EIA screening. Information should be available to make these sub-sector distinctions.

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[5] Agriculture and Rural Development;
Animal Health; is part of Agriculture and Rural Development (following Sector Script)
Energy;
Environment;
Forestry; is part of Agriculture and Rural Development (following Sector Script)
Fisheries;
Human Health;
Infrastructure; Infrastructure and transport are usually within same sector
Transport;
Urban Development; Waste Management; Water Resources ~ these are not sectors *per se*
Education to be added

3	**Will the project be ~~particularly~~ exposed to extreme weather, climate variability/change[6] and to related bio-physical impacts[7] over its lifetime?**	The project must be separated into its components – *i.e.* the activities, the results and the achievement of the purpose. It is not a black box. Area of intervention = means geographical area or sectoral area? This confusion is the reason why '**concerning the area of intervention'** has been taken out - as meaningless.		

[6] 1 **Primary weather and climate variables** - Such as variations in (average and/or extreme) temperature and rainfall patterns;; = But better to use the scientific terms =

1.1 Temperature and rainfall anomalies: noted in meteorological data and/or felt for example in the common perceptions of users of environmental resources as departures from what has been considered 'normal'. Examples here could be altered dates of the onset of rainy seasons; changed length and intensity of what were considered the 'usual seasonal patterns'; more intense precipitation; increased evaporation of water from land and water surfaces; lessened typical snow-packs in mountains; and raised temperatures affecting land elevations and geographical latitudes.

1.2 Extreme weather events and meteorological disasters: Increased frequency and/or severity of droughts, floods, storms, hurricanes, cyclones, heat waves, etc

The next set in the list are:

These lists should be kept separate and separate questions about them developed. Both lists should be more comprehensive and better structured in groups. Recommend that a table that properly sets these out into two groups, with links to other sources of information that help determine the issues. Judgements on these would otherwise be subjective. Sources of information on the effects of climate variability and climate change are given in Annex 11.

[7] **2 Direct and indirect bio-physical impacts** of the weather, that occur as and when climate/weather thresholds are exceeded. The items below *do not describe the weather itself*. These are:

2.1 Direct effects on ecosystems and organisms of altered climate variables and weather events (drought) = wildfires, disease and pest outbreaks, invasive plant and animal species. Marine impacts such as ocean acidification and bleaching events affecting coral ecosystems

2.2 Effects of weather and climate on land surfaces: landslides, acceleration in desertification and soil erosion processes

2.3 Global effects of de-glaciation and ocean thermal expansion: rise in sea level and increased coastal erosion; sea surges and losses of terrain on islands and exposed coasts.

2.4 Alteration in freshwater resources: Reduced availability of water (e.g. changes in river flows, reduced precipitation, melting glaciers, salinity intrusions, rapid loss of snowmelt earlier in the spring and summer seasons), decrease in water quality;

2.5 Effects on farmed resources and organisms: Decreases in crop yields, in forestry yields, in fish catches, in the productivity of livestock breeding and fish farms

2.6 Effects of altered rainfall and temperature on humans: altered disease patterns, spread of stresses and complex interactions between felt impacts resulting in socio-economic dis-benefits, effects on assets and livelihoods and social losses

2.7 Impacts on biodiversity should be included. These could include disturbances to ecological relationships between species members in habitat assemblages.

The above are therefore **biophysical impact variables** resulting from **altered primary climate variables + extreme weather**

		This question as laid out before is confused as there are too many terms to consider – **1. Available knowledge +** **2 Identified particular specific effects +** ~~**3 An area of intervention? +**~~ **4 The project – as the unit of interest +** **5 Direct exposure** This question also requires judgement about meaning of "**particularly**" and guidance as to **timescale.** An author of the screening may ask how to decide if it the effect complies with the term 'particularly', or if the information (vulnerability or climate projections) simply does not justify a yes answer to this. The qualification 'particularly' is equivalent to asking - if that effect or interaction is likely to be 'significant'? -and depends on the *quality of information available* and a *judgement of the degree of confidence* in it. Timescale is an issue because the question of **by when** *significant* exposure could occur of CV on the project. In most cases significant CV effects are only likely to become a concern after the lifetime of a project. For example, in almost all cases, extreme weather events that are clearly attributable to CC, are only likely to occur say beyond a 10-year time frame. Before then, we are likely to be restricted to using 'climate variability', as an assumed proxy for that future definitive climate change, until that can be scientifically-asserted to have occurred. In our definition of 4 questions at Level 1 Portfolio Screening, our questions one and two - as set out in project screening validation - make at least the issue of time scale clear, asking if the effects of CV are likely to occur: (1) during the life of the project or (2) are likely to become significant only after the project has ended.		
3.1	**Text justification**	Set out the evidence for Question 3 What receptors are exposed to what effects, when, to what degree and how is this known?		

If the reply to these questions is **YES,** questions 3 to 6 should be answered.

For the above Questions 1 and 2 there should only be a YES or NO and this can be done at Action Fiche Stage.

However, questions 3 to 6 necessitate Formulation-level information that will not be available to the author of the screening at the Identification stage.

This may make it hard, when using this format (when at identification stage, likely with no project documents, nor with much advanced participation of potential project partners), to reach an **evidence-based assessment** - as to degree by which CV may impair achievement of the project purpose. i.e. '*whether the anticipated achievement of project results and objectives could be only moderately or significantly affected*'

		Yes	MIN	No
4	~~Are~~ **Could the project design, implementation modalities and activities ~~exempt from elements that~~:** **a) ~~might~~ directly or indirectly hinder climate risks reduction** **Is it likely that during implementation, the project will fail to adequately take into account the direct and indirect risks coming from the expected impacts of extreme weather events and climate variability on achievement of the project purpose? (For example due to impacts on the assets of stakeholders and on the delivery of the planned benefits).**	Better if this was clearly split into two questions. We would need separate sub lists of questions. The phrasing used here is tortuous and extremely hard to understand, even for native English speakers. This question presumably was formulated to make "yes" be a positive (are exempt from hindering, exempt from potentially exacerbating) so it could be added up with other results – still needs to be split and turned into proper understandable English. If split, score needs adjusting below. Following the literature about assets and climate change impacts, we consider as missing the concept that the project should include the **assets of key stakeholders**, especially the natural capital of participants who involved in the management of environmental resources (that are assumed to maintain their integrity and maybe co-invested in the project). If climate change is highly likely to adversely affect the basic natural capital assumed capable of being utilised in the project for stakeholder benefits, this risk must be assessed.		
4.1	Risks and assumptions are not addressed or poorly addressed in the project design.	Clumsy way of asking for a positive ~ answer could go equally into "yes" or "no"		
4.2	Stakeholders engagement strategy poorly developed including excluding vulnerable groups	This will not be known until formulation and is anyway unlikely to be the case, so why include the question?		
4.3	No Mid-Term Review foreseen.	It is virtually impossible that any project will not have an MTR included in its design under current EU PCM procedures.		
4.4	No Periodic reviews of risks and assumptions and implementation strategies built into the project design			

		Yes	MIN	No
4.5	No Plans exist to ensure the project has access to information and analysis to enable effective risk management			
5	**Could the project design, implementation modalities and activities ~~exempt from elements that~~:** **b) potentially exacerbate project / community/ ecosystem risk exposure to climate extreme event and variability?** **Is it likely that the outcomes of this project will worsen the vulnerability of project stakeholders and their assets to the impacts of extreme weather events and of climate change/variability?**	"*climate extreme event*" is a made-up word? = weather. No such thing as a climate extreme event exists – only **extreme weather** when: (i) particular meteorological variables reach high levels (ii) thresholds are exceeded (iii) the attributes of the event such as its likelihood and return period, can be assessed statistically within the historical record. Too many concepts in one question. These are separated below: **1 Potential exacerbation of Risk exposure of:** **2 Project +** **3 Community +** **4 Ecosystem to =** **5 Climate extreme event + Climate variability:** **As shown in evidence about the:** **6 Project design +** **7 Implementation modalities +** **8 Activities + (~~exempt from elements that~~):** "Climate *variability*" is in a different category to a "*weather event*"		
	(refer to EIA screening questionnaire, questions n° 3, 8,12,15, 16)	Why is the Screening Author expected to refer to these questions and how exactly does that help?		

Questions previously numbered 4 – 6 (now 6 - 8) below need to be asked at a different stage (e.g. during Formulation). These questions could be better set out as a guidance sheet to project formulators about how to account for disaster risk and climate risk during formulation.				
6	**Are there meaningful references to climate risks in the project support documents?**	Assumes there are project documents available at this stage of the project development process		
6.1	Problem analysis demonstrates awareness of climate risks	OK		
6.2	Project description outlines general approach to deal with climate risks	OK		
6.3	Project description already foresees **specific measures** (**policies and plans**) to strengthen resilience and reduce vulnerability including by improving knowledge relating to climate risks (including capacity building/training/awareness raising, stakeholder engagement and in areas of access to credit and insurance targeting vulnerable groups)	OK		
6.4	Project design already sets aside **financial resources** to support climate risk mitigation adaptation measures	OK		
7	**At this stage is there evidence that the project partners have the necessary awareness and institutional capacity to address climate risks?**	**At this stage** = But what if the screening is being carried out at Identification stage - before full involvement of partners - therefore there may be insufficient evidence available to answer 7.1 to 7.5?		
7.1	Project partners are building awareness/staff capacities in the area of climate risks mitigation disaster risk prevention and preparedness	Several sub-questions repeat and overlap here under Questions 3- 6		
7.2	Project partners have put in place **policies and plans** to deal with climate risks (such as links with disaster prevention and preparedness plans established in the area of intervention)	If YES to 6.3 almost certain that YES to this question.		
7.3	Project partners have committed **resources** on implementing those policies and plans (including information gathering, risk management, stakeholder engagement)	If YES to 6.4 almost certain that YES to this question.		
7.4	Project partners have put in place institutional/organisational arrangements to deal with climate change such as adaptation projects underway.	OK		
7.5	Project partner actively participates in cross-sector / public-private/ international coordination efforts to deal with climate change (including NAPA, GCCA etc)	This question implies that 'the partner' is a government, as only governments as a whole are likely to be involved in these international networks and initiatives. Therefore question excludes other potential partners such as sector ministries, civil society bodies etc, unless examples at those levels are provided as well.		

This question could be absorbed in the other two question on the previous page. PROPOSE TAKING IT OUT.

8	~~**Are there you aware of any existing/planned risk management programmes or policy instruments that could directly support the project's climate risks mitigation needs?**~~	Who is 'you'? Why is the awareness of the author (for example the Delegation Official authoring the screening) an issue? Question is better confined to asking about the potential role of DRR or other risk management relevant to the project.		
8.1	Disaster prevention and preparedness plans (FEWERS - Early warning system, monitoring and analysis) established in the area of intervention and operational	Why condition this to already operational if the question already asks about 'planned' DRR? Already covered in 7.2		
8.2	Adaptation projects underway (NAPA, GCCA)	Already covered in 7.4		
8.3	Policy instruments / programmes / plans in place to strengthen resilience and mitigate risks such as in the area of access to credit and insurance targeting vulnerable groups	Already covered in 6.3		

§ If a reply to one of the first two questions above is negative ~~positive~~ then the project (or elements) should be classified as either **MEDIUM** or **HIGH** risk, depending on whether the anticipated achievement of project results and objectives could be only moderately or significantly affected.

An analysis of the **likely degree of impairment** of the antic[pated achievement would require a section of the Climate Risk Screening in which an argument – set out as text - would separately assess if the **likely degree of impairment** is determined as MODERATE or SIGNIFICANT - and why.

This would have to assess the climate and vulnerability information as to potential effects of CV on the project's activities, beneficiaries, results etc.

§ Actual degree of vulnerability will be a function of the capacities and measures already in place or planned to deal with the identified concerns at the policy, institutional and project levels (questions 3-6). A majority of negative ~~positive~~ replies to questions 3-6 is therefore likely to lower the level of risk.

Note that Questions 3 - 6 need to be asked at Formulation Stage, not during ID or Action Fiche stage.

§ Typically:

- Projects where substantial parts are directly and significantly exposed to the effects of climate variability and climate change and where no capacities or measures are in place to deal with it – or where measures are foreseen that might exacerbate vulnerability - should be considered **HIGH** risk.
- Where exposure is mild and indirect, (these terms are EIA terms and are not specifically evaluated in terms of CC) and/or only some elements of the project are exposed to climate risks, or when exposure is high but some measures are in place/planned to deal with it, the project should be considered **MEDIUM** risk.

The various ingredients are proposed that these should be assessed by Screening Author in various complex combinations. This complexity and multiple arrangements may make it virtually impossible to clearly decide whether the HIGH or the MEDIUM risk is justified.

This is a decision taking protocol with balances driven between various uncertain elements and needs more clarity: (i) the trade-offs need to be decided (ii) a clear case has to be made about what the facts show (iii) what evidence exists on which to base the argument.

The ingredients of the text above are the following:

1. **Project parts** – (i) substantial proportion of project **OR** (ii) some parts of project
2. **Exposure** – (i) direct and significant **OR** (ii) mild and indirect
3. **Capacities or measures** are in place to deal with it – (i) no measures **OR** (ii) some measures
4. **Measures foreseen** that exacerbate vulnerability – (i) yes these exist **OR** (ii) there are no likely project-caused vulnerability exacerbating measures

Follow-up of climate change screening in the formulation phase

Projects classified as HIGH or MEDIUM risk may either be abandoned or (more likely) the formulation phase should further investigate and identify risk mitigation / adaptation options to increase the resilience to climate risks. For high- and medium-risk projects the general guidance provided in Annex 9 can be used in combination with the attached sector guidance to determine which issues should be included for further analysis in the ToR of the formulation study. Sector guidance also provides entry points to integrate options for GHG emission reduction in the project design.

Where there is high confidence of risks that demand further investigation, **climate modelling and downscaled impact scenarios may be useful in enhancing the risk assessment** and also in identifying the most appropriate type of adaptation measures. A number of tools are being developed and tested within the development community which may help project managers making more informed project decisions. The possibility to undertake specific *climate risk assessments* may also be considered – guidance is provided to this effect in the Handbook, Annex

Part of this proposal is unlikely to fulfil. Most probably downscaling of climate data could only be cost or technically justified not at Identification stage, but only at Formulation, and only then for larger projects. For some countries downscaling would be ill advised e.g. Papua New Guinea where the original climatic data are 30 years old

It would be better for this proposal to support or facilitate *climate modelling and downscaled impact scenarios* when preparing the proposed Climate Change component that we suggest should be built into the Country Environment Profile.

Part III: Summary of screening outcomes – Option a (one summary sheet)

The following information should be provided (as an annex to the project Identification Fiche) with the documentation submitted to the Quality Support Group.

We are not convinced that Part III is appropriate - because an EIA has an element of presumption that a project can go ahead only if identified risks are suitably mitigated, whereas a project affected by climate change would rarely allow for significant risk mitigation (i.e. extreme weather via infrastructure that controls how gravely the impacts are eventually felt by vulnerable receptors of risks).

Annex to project Identification Fiche: Summary of outcomes of environmental and climate-related screening[8]

1. Outcome of environmental and climate screening *(tick as appropriate)*
• Cat. A/B project (Environmental Impact Assessment will be undertaken during formulation; Climate risks mitigation addressed within EIA or in parallel **via in-depth climate assessment.** An EIA is not the appropriate method for addressing climate risk mitigation, as EIA would only apply strictly to carbon emissions that has highly diffuse effects mediated globally, and almost no direct benefit locally to a particular project site. • Cat. B project (environmental impacts and climate risks mitigation will be addressed during formulation) • Cat. C project (minor environmental impacts, climate risks mitigation and/or opportunities to enhance environmental benefits will be addressed during formulation) • Cat. C project (no further consideration of environmental and climate risks is needed)
Indicate briefly on which basis the decision to classify the project as cat. C was reached. If further assessment is to be carried out during formulation, briefly describe the main types of risks impacts/or other aspects that will be the subject of such assessment.

[8] Environment and climate screening questionnaires for the project modality are at annex 7 of EIH,- hyperlink - Chapter 6 is also relevant in this context

Part III: Summary of screening outcomes (Option b: 2 Summary sheets)

The following information should be provided as an annex to the project Identification Fiche with the documentation submitted to the Quality Support Group.

Annex to the project Identification Fiche

Summary of outcomes of environmental and climate-related requirements

1. Screening Outcome for EIA Requirement *(tick as appropriate)*
• Category A/B project : EIA will be undertaken during formulation • Category B project: Environmental aspects addressed during formulation • Category C project: No EIA required. (Residual environmental impacts and/or opportunities to enhance environmental benefits will be addressed during formulation)
Justify briefly on which basis this decision was reached. If further assessment is to be carried out in the formulation study, briefly describe the main types of impacts that will be the subject of such assessment.
2. Screening Outcome of Climate Risk Assessment *(tick as appropriate)*
• High-risk project: further assessment will be conducted in the formulation study through undertaking a specific in-depth climate assessment as set out in Annex X of the Environment Integration Handbook; • Medium-risk project: further assessment will be conducted in the formulation study; • No --or Low risk: no further consideration of climate-related risks is needed or minor further assessment will be conducted in the formulation study;
Justify briefly on which basis this decision was reached. If further assessment is to be carried out in the formulation study, briefly describe the main types of risks that will be the subject of such assessment. "further assessment will be conducted in the formulation study" seems to be the result irrespective of risk – Therefore the implications of deciding that the project is under **high climate risk** need to be different to another **medium risk screened project**.

T. 2 A (ii) Project Level Screening – Annex 7 (revised version)

Annex 7. Project Environmental Screening

This annex describes screening procedures to aid decision making on the requirement for an Environmental Impact Assessment and for guide appropriate responses to climate-related risks and constraints. As well as screening for undesirable effects, the process also provides for the early identification of opportunities. The screening is presented in three parts, with a summary sheet at the end to record the results.

- Part 1: provides a screening list and a questionnaire to determine whether or not a project requires an Environmental Impact Assessment (EIA)
- Part 2: provides a set of questions to screen the project from a climate risk perspective to determine whether or not it requires further in-depth climate risk assessment, irrespective of the outcome of Part 1
- Part 3: provides a form to summarise the results obtained in section 1 and 2 to be provided as an annex to the '*Project Identification Fiche'* with the documentation submitted to the Quality Support Group

The table below provides a list for the EC co-operation focal areas, mainly derived from information given in the EU EIA Directive[9] and World Bank[10] guidance. These classification lists should be used in combination with national legislation requirements in order to determine whether or not an EIA is required[11].

Part 1: Screening for Environmental Impact Assessment (EIA) (removed)

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[9] See http://ec.europa.eu/comm/environment/eia/eia-legalcontext.htm
[10] World Bank Environmental Source Book Update, Environmental Screening, Nov 1996.
[11] Reference can be made to Annexes 1 and 2 in the EU EIA Directive for themes that are not covered here (e.g. industrial projects).

Part II: Climate Change Risk Screening

	PROJECT GEOGRAPHICAL LOCATION	If YES, indicate with an X	More information needed =?	If NO, indicate with an X
1	**Will the project be carried out in climate-sensitive geographical areas and land-use types[12] ?**			
1.1	**Text justification or qualifying information -** set out your evidence for answer to Question 1			

Explanation: the phrase *carried out* requires judgement as to the extent to which that project activities are being "carried out" in the types of areas that have been set out as being especially vulnerable. The project may operate at a higher level, as in sector-support programmes. Some projects may be carried out only to a small extent in one of the at-risk areas, may cover several types of diverse areas, or the information may not now be available.

If the project is not restricted in spatial or a known geographical extent, then, as the answer may not be a full "yes" or "no", clarify by explaining in the text box how much the project activities are undertaken in those specific types of area, or to give the reasons why the question is difficult to answer.

	PROJECT SECTOR	YES	?	NO
2	**Will the project be carried out in sectors of activity (EC intervention) that are considered under higher levels of risk from extreme weather, climate change or increased variability[13] ?** Use table below to assess finer distinctions of climate risk faced by sub-sectors and by activities within sectors.			
2.1	**Text justification or qualifying information -** set out evidence for your answer to Question 2			

Explanation: the sector list set out in the footnote conforms to 'EU consensus' sectors and relies on an analysis of which of the overall EU consensus sectors can be said to be, typically, particularly exposed and/or sensitive to climate change. If the CSP and NIP specifies sectors in other ways, or defines certain CSP-specific sub-sectors, then please use the text entry option to explain the definition that is being used. If possible, describe how closely this sector categorisation aligns with the similar EU Consensus categories.

[12] **HIGHER CLIMATE-RISK GEO-REGIONS:**

- High mountainous regions
- Regions depending on water from forested or glacial catchments in mountainous regions
- Flood plains and river deltas
- Low-lying landmasses and coastal areas / regions with significant extension of coastlines
- Arid and semi-arid regions
- Tundra and permafrost regions
- Small Island Developing States, as well as areas with many small islands that are classified as a SIDS *per se*

[13] **HIGHER CLIMATE-RISK SECTORS:**

- **Rural development, territorial planning, agriculture and food security** (includes land-use planning; wild and farmed fisheries; livestock & animal health)
- **Energy and water resources** (includes water supply, sanitation and renewable energies)
- **Environment and natural resource management** (includes conservation or protected areas and biodiversity-based resources, particularly the management of watersheds, forests, marine areas and coral ecosystems; waste management)
- **Human development: health, education** (includes tourism)
- **Infrastructure, communications and transport** (includes urban development, marginal settlements)
- **Disaster risk management** (includes meteorological hazards)

In addition, you can enter additional text setting out your understanding of how this sector in the particular country may be exposed or sensitive to climate change and variability. See final page for text explaining issues related to climate change and variability.

PROJECT SUB-SECTORS

The table below, following EIA screening practice, defines which sub-sectors are considered sensitive to climate change and variability, under the umbrella of each sector, to provide generic, finer scale, intra-sector differences in climate-sensitivity, just as for the EIA table. Please check the screening lists to see to which category your project belongs.

The table below provides lists for the EC co-operation focal areas in order to determine whether a full In-depth Climate Risk Assessment is required, and would make the Climate Risk Screening provide a commensurate level of rigour as EIA screening. The contents of this list are mainly derived from information given in EC Sector Scripts and other guidance. It should be used in combination with national information on sector vulnerabilities (i.e. UNFCCC Second Communications) so that the classification of candidate projects reflects national conditions.

	PROJECTS UNDER POTENTIALLY HIGH CLIMATE RISK LIKELY TO REQUIRE IN-DEPTH CLIMATE RISK ASSESSMENT	INTERMEDIATE PROJECTS LIKELY TO REQUIRE ADJUSTMENTS AND INCLUSION OF CLIMATE RISK MANAGEMENT	NON-THREATENED PROJECTS
1. GOVERNANCE, DEMOCRACY, HUMAN RIGHTS, SUPPORT FOR ECONOMIC AND INSTITUTIONAL REFORMS			
			Institutional projects
2. TRADE AND REGIONAL INTEGRATION			
	Harbours and ports (under risk of sea surges, coastal storms and rising sea levels, power cuts and land-based transport infrastructure disruption)	Regional infrastructure	Institutional projects
3. INFRASTRUCTURE AND TRANSPORT			
Infrastructure	Infrastructure depending for operation on the availability of water (hydropower stations, irrigation systems, human settlements, mining, agricultural processing industries) Tourism and natural-resources based recreation infrastructure. "Mal-adapted" infrastructure development (new roads and other coastal infrastructure; delta area and river banks development; flood control measures) Urban infrastructure, residential and commercial buildings (public and private) under "heat island", urban flooding and air pollutant effects.	Urban-related energy supply, water supply, food supply, sanitation, transport and communication infrastructure Telecoms infrastructure (data and computer centres under risk of heat stress and floods)	Municipal and regional and long-term strategic spatial planning Strategic flood assessment National and municipal building control and norms Retrofitting infrastructure, and re-designed operating systems and processes Defensive infrastructure (e.g. flood defences, sea defences, runoff collectors, pumps) to protect key assets Infrastructure maintenance and repair capacity (planning, organisation, logistics, financial and human resources)
Transport	Upgrading or construction of rural roads and road drainage Bridge construction across rivers and on flood plains Roads through climate -sensitive areas, particularly mountainous areas under landslide risk, semi-arid areas, river banks or other fragile terrain Construction of coastal ports Railways and associated works (bridges, tunnels, culverts) Inland waterways affected by stream flow irregularity (heavy-rainfall induced increased flow rates, drought-related reduced flows)	Construction or paving of roads of urban roads and multi-lanes Widening, realignment or pavement of existing roads Airports and runway under threat from floods, rising sea levels, sand dunes, wind and rain storms	Road safety Technical specifications and engineering standards for drainage systems, road surface temperature resistance, soil erosion prevention) Sustainable urban drainage systems (SUDS) Transport policy development and planning process for better physical location of infrastructure Integration of road, rail, water and air transport

	PROJECTS UNDER POTENTIALLY HIGH CLIMATE RISK LIKELY TO REQUIRE IN-DEPTH CLIMATE RISK ASSESSMENT	INTERMEDIATE PROJECTS LIKELY TO REQUIRE ADJUSTMENTS AND INCLUSION OF CLIMATE RISK MANAGEMENT	NON-THREATENED PROJECTS
4. WATER AND ENERGY			
Water	Water distribution systems in climate-sensitive terrain particularly when populations and infrastructure are in arid zones and on settled floodplains Watershed management under competing uses for scarce water resources Municipal wastewater and potable water treatment facilities – pumping / purification plants and stations Water-supply dams and reservoirs – potable and irrigation Water supply projects relying on sources such as glacier and snowpack-fed rivers, vulnerable abstracted groundwater and coastal aquifers threatened by salinity intrusions	Basic decentralised sanitation infrastructure - urban and rural Supply-side measures to increase water supply - management of groundwater recharge, better use of surface water, exploiting new sources, contamination protection	Seasonal weather forecasting systems Flood protection and disaster risk management integrated water resources management and watershed management organisational development esp. participatory negotiation Integrated coastal zone management Demand-side measures to reduce water consumption in storage, distribution and irrigation systems Water-related policies - regulatory measures, sanctions, definition of water rights, setting economic signals, water pricing and demand-control incentives. “Climate-resilient” water-supply energy infrastructure
Energy	LS and SS hydroelectric dams depending on catchments areas that are flood/drought-prone or primarily fed by snowmelt and glacier waters Off-shore wind farms and infrastructure Power generation plants under flood/landslide/sea-surge risk on coastal and low-lying delta areas.	Land-based wind turbines Conventional thermal power plants at risk of reduced cooling water availability Energy transmission and distribution infrastructure esp. rural electrification	Energy conservation Solar energy installations Bio-fuel industry - production of energy crops and fuel wood Energy sector policy planning for distributed and decentralised power generation capacity and adapted grids Climate-resilient energy conversion infrastructure
5. SOCIAL COHESION AND EMPLOYMENT			
Social	Women in development Resettlement of refugees and internally displaced persons		Institution capacity building and advice Social security and other social schemes Employment creation and income generation programmes Vulnerability-reduction programmes for elderly, orphans, disabled, street children
6. HUMAN DEVELOPMENT			
Health Care	Air and water vector control Rural clinics, equipment and facilities Non-health sector “mal-adaptation”: micro-dams for irrigated agriculture; large dam development; re-use of untreated sewage and wastewater for irrigating crops.	Urban clinics and facilities Health-facilities related essential public infrastructure (transport, energy, water adduction, sanitation, telecoms) Refrigeration equipment, air conditioning and heating	Epidemiological surveillance systems Climate-resilient public health management practices and maintenance of health infrastructure Storage and distribution systems for drugs, vaccines, medical supplies and equipment Health-based water, food and air quality monitoring systems Health action plans for heat waves and other emergencies preparedness Climate-risk related improvements in non-health sectors (food security, water quality, environmental quality, security, education, social cohesion, economic development)

	PROJECTS UNDER POTENTIALLY HIGH CLIMATE RISK LIKELY TO REQUIRE IN-DEPTH CLIMATE RISK ASSESSMENT	INTERMEDIATE PROJECTS LIKELY TO REQUIRE ADJUSTMENTS AND INCLUSION OF CLIMATE RISK MANAGEMENT	NON-THREATENED PROJECTS
Education	Educational facilities and infrastructure – rural and marginal urban Rural schooling under climate-related stresses to food security, water availability, nutrition, exacerbated conflicts and health.	Public infrastructure (transport, energy) needed for school accessibility and operationality	Training, informal education "Climate-resilient" educational infrastructure
7. RURAL DEVELOPMENT, TERRITORIAL PLANNING, AGRICULTURE AND FOOD SECURITY			
Agriculture	Introduction of new crops LS and MS irrigation in arid zones and ground water exploitation Programmes located in areas affected by natural resource and other social conflicts Land reform, reclamation and conversion Land drainage of water logged areas	Rural development-based processing industries Agricultural produce transportation Conversion to alternative land uses Non-agricultural alternative development	Integrated Water Resources Management Soil and water conservation esp. landslide and runoff control Crop breeding for climate-resilience and diversification Plant and post-harvest protection and pest control; low-cost agricultural inputs and pest, disease and weed management practices Water-efficient irrigation systems Agroforestry systems supplying ecosystem services to crops (shade, soil, wind and pest control) Risk management and production-enhancing techniques esp. control of use of fire as a production and weed brush vegetation-control technique Centres and programmes for conservation and use of biodiversity Financial services (inc. insurance or other forms of risk sharing) Fertiliser/pesticide/water optimised production techniques Defended areas for cultivated land, infrastructure and human settlement (dykes, seawalls, green barriers, fire lines)
Livestock	Dry-land intensive production rearing Stock water supply facilities Irrigated animal feed production	Feed-supply and animal transport infrastructure	Schemes and support services for livestock animal health, pest control and pasture management Shifting to more drought tolerant livestock breeds and species Livestock research (animal health, breeding and genetics, nutrition, physiology)
Forestry production	Forest plantations and forest roads Introduction of exotic timber species	Commercial forest management Fuelwood/charcoal	Sustainable and low-impact forestry management – erosion/desertification control Forestry sector policy, planning and programmes; institution capacity building and advice; forest surveys
Fisheries	Coral reef ecosystem-based fisheries Aquaculture in coastal / mangrove areas Freshwater aquaculture - lake and lagoon-based fish farming	Harbour, coastal and aquaculture infrastructure Strengthened coastal defences Fishing harbours; fish markets; fishery transport and cold storage	Fishing sector policy and programmes; institution capacity building New fishing technologies and policy development for sustainably limiting to fishing fleets and fish catches Ecosystem-based approaches to fish stock management and marine protected areas Natural coastal infrastructure

	PROJECTS UNDER POTENTIALLY HIGH CLIMATE RISK LIKELY TO REQUIRE IN-DEPTH CLIMATE RISK ASSESSMENT	INTERMEDIATE PROJECTS LIKELY TO REQUIRE ADJUSTMENTS AND INCLUSION OF CLIMATE RISK MANAGEMENT	NON-THREATENED PROJECTS
Food security	Food aid and food security programmes (supply of edible human food, cash payments for food supplies; project food aid)	Food stock conservation Crops engineered to resist droughts and salinity	Rural development institutional strengthening (supra-national, national, regional and local level) Monitoring, information sharing, seasonal climate forecasting and early warning systems Climate resilience of food production, storage and distribution systems
Mining	Operations infrastructure (water and power supplies)	Offshore minerals	Mineral and mining sector policy, planning
Processing industries and tertiary sector	Eco-tourism Agro-industries - food processing, dairy products, slaughter houses, meat and fish processing	Industrial and commercial infrastructure Processing industries sensitive to losses of inputs and supplies due to vulnerable primary production and extractive upstream activities	Sector organisation, institutional strengthening , value-chain integration and improvement Local electricity generation (esp. renewable sources) Integration of climate risk management into business strategies Upstream land planning and management and natural resource management
8. ENVIRONMENT AND SUSTAINABLE MANAGEMENT OF NATURAL RESOURCES			
Protected areas	Protected areas management – particularly wetlands, coastal, savannah/dry and cloud forests Bio-diversity measures to protect endangered/vulnerable species and habitats	Air / marine pollution control	Agroforestry systems promotion Environmental policy, administrative management and research Flood prevention/control and drought impacts mitigation
Waste disposal and treatment	Sewerage systems and waste water treatment facilities Domestic and municipal solid waste management Coastal waste management Industrial agricultural and agro-industrial waste	Sector-associated infrastructure (transport, waste segregation sites, landfills, buildings, roads).	Control and monitoring of pollution, education, awareness raising Upgraded transport infrastructure and local energy supply Climate-resilient landfill waste management techniques and processes
9. CONFLICT PREVENTION AND FRAGILE STATES			
			Civilian peace-building, conflict prevention and resolution Security system management and reform Assistance to civil society to enhance its conflict analysis and mitigation competencies and capacities

	CLIMATE IMPACTS OVER PROJECT LIFE	YES	?	NO
3	**Over its lifetime, is it likely that the project's activities, results and outputs could be significantly exposed to extreme weather, climate variability and a changing climate [14] and to related bio-physical impacts[15] ?**			
3.1	**Text justification** setting out the evidence for your answer to Question 3			

Explanation: The definition of 'the project' used here includes the project activities, the inputs used, the project components and the assets invested or deployed by partner organisations. The concept accounts for how the results will combine to achieve the project purpose. The project also includes the outputs delivered to the beneficiaries over the project's lifecycle. However in this question, "the project" does **not** include the livelihoods strategies, institutions, living conditions and assets of the **target groups**. This is covered by Question 4 in relation to the sustained delivery of project benefits.

The timeframe is limited to the project lifecycle to restrict your answer to the **likely shorter-term impacts** of extreme weather events and climate change. Your text qualification would examine which **elements of the project** may be exposed to the **impacts of extreme weather events and to climate variability,** by when and to what degree.

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[14] Listed below as a reminder, and as a prompt for answers, are some **biophysical impacts** that result from **altered climate variables** and from **extreme weather events.** Please refer to this list as you assess implications of climate change. Sources of information on the effects of climate variability / change are given in Annex XX.

Altered weather and climate variables

(a) *Temperature and rainfall anomalies*: variations in (average and/or extreme) temperature and rainfall patterns; noted in meteorological data and/or noticed in the perceptions of the local users of environmental resources, as departures from what has been considered 'normal'. Both types of information should be considered and validated.

Examples are: altered seasonality involves increasingly altered dates of the onset or finishing dates of 'typical' rainy, dry or cool seasons, leading to changed lengths of what has been considered the 'usual seasonal pattern'; more intense precipitation and altered runoff; higher temperatures noted in increased evaporation of water from soils, land and water surfaces, increased human stress or in the altered performance of crops or livestock.

(b) *Extreme weather events and meteorological disasters:* Increased frequency and/or severity of droughts, floods, storms, hurricanes, cyclones, heat waves, *etc*.

[15] **Direct and indirect bio-physical impacts** of extreme weather, altered seasonality, climate shifts and other exceeded thresholds. The items below *do not describe the weather itself* and are:

(a) *Terrestrial and marine biodiversity* – degradation and loss of ecosystems and of populations of the organisms they include. The altered climate variables and weather events that drive these biodiversity changes include: (i) wildfires, disease and pest outbreaks and invasive plant and animal species; (ii) ocean acidification and other altered marine conditions, such as bleaching events that affect coral ecosystems; (iii) raised temperatures and altered rainfall patterns that shift agro-climatic zones and the 'climate envelopes' of organisms - usually towards higher-elevation terrain and cooler geographical latitudes; and (iv) disturbances to ecological relationships between species members in key habitats.

(b) *Land surfaces and resources*: coastal land loss; landslides and other instabilities; acceleration in desertification and soil erosion processes.

(c) *Global de-glaciation and ocean thermal expansion:* leading to rises in sea level and increased coastal erosion; sea surges and losses of terrain on islands and exposed coasts.

(d) *Freshwater resources*: Reduced quality and availability of water *e.g*. changes in river flows and runoff; depleted aquifers and springs; melting glaciers; salinity intrusions inland from coasts; lessened snow-packs in mountains; and more rapid seasonal progress of snowmelt.

(e) *Agricultural resources and processes*: decreases or other effects of altered temperatures and precipitation on crop yields, on forestry yields, in fish catches, in the productivity of livestock breeding and fish farms.

Direct and indirect socio-economic impacts

(f) *For human communities*: altered disease patterns, spread of excess heat or water-scarcity stresses; interacting impacts leading to social/economic costs, such as effects on livelihoods assets, particularly losses of social capital and other impacts on community resilience.

(g) Reduced availability of natural resources (water, food, energy), damaged infrastructure (roads, health, educational facilities), and consumption reaching levels beyond supply capacities.

(h) Increased mortality and morbidity; vulnerability related to malnutrition; loss of livelihoods, economic difficulties and social disruption; increased probability and intensity of conflicts; damage to or destruction of infrastructure; population displacement and human migrations.

Please describe your assessment of the degree of significance of the likely impacts. This could be the case if the information about the likely vulnerability of components of the project, or the impacts projections used, is too weak to clearly state 'YES' but you still have concerns. Please mention what you know about the *quality of information available* and your *judgement about the degree of confidence* in it.

	CLIMATE IMPACTS ON CONTINUED BENEFITS	**YES**	**?**	**NO**
4	**At the end of the project implementation period, are the expected impacts of climate change, variability or extreme weather likely to hinder the sustained delivery of project benefits, during the subsequent ten-year period particularly the achievement of the positive livelihoods outcomes planned for target beneficiaries?** Now take into account any anticipated impacts of climate change, variability and extreme weather on the livelihoods and their assets of target beneficiaries, and on the operations of partner organisations. It may be useful to think through the climate and bio-physical impacts that could affect the types of capital - natural, social, financial, physical and human – that are needed for sustainable livelihoods.			
4.1	**Text justification** Set out the evidence for Question 4			

Explanation: As this question extends the analysis into the medium term by when more robust climate changes are likely to occur, to answer requires some familiarity with national/regional climate science and with projections of climate change impacts. Respondents should access the climate change content of the EC's Country Environmental Profile and review documents such as the country's National Communications to the UNFCCC. Advice should be sought from the lead government ministry holding climate information, and documents should be reviewed that are available for similar projects supported by other donor agencies.

At Identification Fiche Stage, early in the project pipeline, it may be the case that only Questions 1, 2 and 3 (and perhaps 4) are able to be answered. This is because questions 5 to 7 necessitate formulation-level information that will not usually be available to the author of the screening at the Identification stage.

This may make it difficult when using this format at Identification stage (without project documents and little advanced participation of project partners) to reach an in-depth assessment about the degree to which CCV may impair achievement of the project purpose.

SCREENING FOR PROJECT CLIMATE RISK MANAGEMENT - TO BE ANSWERED IF REQUIRED INFORMATION IS AVAILABLE AND IF THE REPLIES TO ANY OF QUESTIONS 1, 2, 3, 4 ARE YES

Attempt to provide answers to the overall question, through responding to the sub-questions, which serve as pointers to your overall answer. All questions are framed as negatives, so that answering YES implies that there is a concern.

Please put in your responses to the sub-questions below, as a 'no' or 'yes' in lowercase letters. Then add up the responses you have made to the sub-questions and assess if the overall response to the Main Question (5, 6, 7) is a YES or a NO in CAPITALS.

	ADEQUACY OF PROJECT CLIMATE RISK MANAGEMENT	**YES**	**?**	**NO**
5	**Is it likely that project stakeholders and managers will not adequately tackle the potential impacts, of extreme weather events and climate variability, on the achievement of the project purpose?** Please account for both direct and indirect impacts.			
		yes	**?**	**no**
5.1	Climate / extreme weather risks/assumptions are unaddressed or poorly addressed in the **project design** and in the **initial problem analysis**.			
5.2	**Stakeholder engagement strategy** is poorly-developed as it does not account for vulnerable groups and their climate-risk related concerns.			
5.3	No periodic **reviews of risks and assumptions** and implementation strategies built into the project design. No Mid-Term Review is foreseen, or these will have no ToRs to review climate risks.			
5.4	No plans exist for the project stakeholders to access **climate information and analysis** so as to enable effective risk management.			
5.5	Project risk management excludes the longer-terms effects of climate change on **target beneficiary's assets**, especially the natural capital of participants who are managing exposed environmental resources.			

	ADEQUACY OF PROJECT CLIMATE RISK MANAGEMENT	YES	?	NO
	Text justification: Likely role of project risk management in the mitigation of undesirable climate impacts, and in favouring the adaptation by stakeholders of systems likely to suffer unavoidable climate impacts.			

	PROJECT MAL-ADAPTATION	YES	?	NO
6	**Is it likely that the outcomes of this project will worsen the vulnerability of project stakeholders and their assets to the impacts of extreme weather events and of climate change and variability?**			
	Text justification: observations on the potential for the project to lead to mal-adaptation.			

Explanation: This question deals with how well any climate-related risks and assumptions that are included and listed at purpose-level within the logframe are addressed. The issue here relates to potential mal-adaptation. This occurs if project investments are made that might enhance local vulnerabilities to climate change impacts, rather than reducing them. Consider that project results and adaptive responses may have unintended, adverse consequences, that outweigh planned benefits. Coping and adaptive responses that are made without consideration for interdependent systems, may increase risks to other systems *i.e.* if adaptive responses have adverse consequences for social well-being, by not accounting for equity; this also covers the social acceptability of adaptive responses. For example, a poorly designed agricultural scheme could make farmers invest in intensive crops that rely on irrigation water that is taken from supplies threatened by climate-related effects, such as depleting rivers fed by glaciers, or taken from forested catchments that are at risk of fire or drought-related mortality.

	CLIMATE RISK ACCOUNTING WITHIN PROJECT DESIGN	YES	?	NO
7	**Is there evidence that project partners do not have the necessary awareness and institutional capacity to address climate risks?** (such as meaningful references to climate risks in project documents) Limitations have been identified in the stakeholders' adaptive capacities			
		yes	**?**	**no**
7.1	Project description does not outline approaches to deal with climate risks within its **risk management framework** (such as in assumptions column of the logical framework at purpose level or linked to specific results).			
7.2	Project description and project partners do not anticipate **specific measures** that would strengthen resilience and reduce vulnerabilities (policies and plans that improve access to climate knowledge, prepare for disasters, build capacities and enhance awareness of climate risks).			
7.3	Project design and agreements with partners do not set aside **financial resources** to support climate risk mitigation and adaptation measures (such as information gathering and stakeholder engagement).			
7.4	Project partners have not planned **institutional arrangements** to deal with climate change (such as adaptation projects underway, partner membership of national and international networks).			
	Text justification: observations on how adequately partners are addressing climate risks and how this is reflected in project documents.			

INTERPRETING THE RESPONSES TO DETERMINE THE PROJECT'S CLASSIFICATION

If none of the answers to the first four questions is YES, then the project is classified as **LOW** risk, and does not require an in-depth climate assessment. If replies to any of the first four questions are YES then the project (or its elements) should be classified as either **MEDIUM** or **HIGH** risk. Two or more **YES** answers indicate HIGH risk.

To determine MEDIUM or HIGH risk depends on whether the anticipated achievement of project results and objectives would be only moderately affected or significantly affected. The actual degree of vulnerability will be a function of the capacities and measures already in place or planned to deal with the identified concerns at the policy, institutional and project levels, as evidenced in answers to questions 4-7. Note however, that *the information to respond to Questions 4 -*

7 is only likely to be available at Formulation Stage and would only be available to a lesser extent during earlier PCM stages.

The **answers to Questions 5, 6 and 7** should permit an analysis of the **likely degree of impairment** of the anticipated achievement of the project's results and objectives. A majority of NO replies to Qs 4 - 7 is likely to lower the level of risk.

This decision-taking procedure requires balances to be driven between various uncertain elements. Decisions taking depends on trade-offs and the clarity of the case that could be made about using facts available and existing evidence.

Assessing the **likely degree of impairment** as HIGH or MEDIUM requires determination of the following project parameters:

- **Project components** – (i) substantial proportion of project **OR** (ii) some parts of project, such as specific results
- **Sensitivity** – (i) the systems involved in the project (human beneficiaries, ecosystems, organisations) are likely to respond badly and directly to climate stimuli **OR** (ii) effects of climate change on project elements are minor or may be indirect
- **Exposure** – (i) direct and significant **OR** (ii) mild and indirect
- **Capacities or measures** are in place to deal with it – (i) no measures **OR** (ii) some measures
- **Project results and activities** that could exacerbate vulnerability – (i) yes these exist **OR** (ii) there are no likely project-caused vulnerability exacerbations

Projects where substantial parts are directly and significantly exposed to the effects of climate variability and climate change and where no capacities or measures are in place to deal with it – or where measures are foreseen that might exacerbate vulnerability - should be considered **HIGH** risk. The project should be considered **MEDIUM** risk IF exposure is mild and indirect, and/or only some elements of the project are exposed to climate risks OR IF exposure is high, but some measures are in place/planned to deal with it. The following table sets out the options and proposes a categorisation that follows the Screening Analysis:

RANKING	**ANSWERS TO QUESTIONS 1 TO 4**	**IN ADDITION TO INDICATIONS FROM QUESTIONS 1-4 FURTHER EVIDENCE FROM QUESTIONS 5, 6, 7 SHOWS THAT FOR:**			
		SENSITIVITY	**EXPOSURE**	**ADAPTIVE CAPACITY**	**POTENTIAL MAL-ADAPTATION**
HIGH RISK Anticipated achievement of results / objectives is likely to be ***significantly*** affected.	More than one YES answers	Groups and systems involved in the project show high sensitivity to climate variability and extreme weather	Substantial parts of the project are directly and significantly exposed to the effects of climate variability and climate change	Few capacities or measures are in place to deal with climate risks	There are risks that project activities or results might exacerbate vulnerability
MEDIUM RISK Anticipated achievement of results / objectives is likely to be ***moderately*** affected.	One YES answer	Some groups are known to be climate – sensitive	Project exposure to climate risks is mild and/or indirect Some elements of the project are exposed to climate risks	The exposure level to climate risks is dealt with through measures in place or planned to deal with it. This is shown by a majority of NO answers to Questions 4-7	No or minor risk of mal-adaptation
LOW RISK	All NO answers	No answer about this is needed	No answer about this is needed	No answer about this is needed	No answer about this is needed

FOLLOW-UP OF CLIMATE CHANGE SCREENING IN THE FORMULATION PHASE

MEDIUM RISK: For projects classified as MEDIUM risk the Formulation phase should further investigate and identify risk mitigation/adaptation options to increase the resilience to climate risks. The general guidance provided in Annex XX may be used in combination with the attached sector guidance to determine which issues should be included for further analysis in the ToR of the Formulation study. Sector guidance also provides entry points to integrate options for GHG emission reduction in the project design.

HIGH RISK: If a significant number of answers to Questions 4 - 7 are YES, then the project is classed as under HIGH risk it may either be abandoned or undertaking a specific *climate risk assessment* must be considered. The screening analysis would therefore recommend obligatory assessment of likely climate change and variability, and analysis of local relevant vulnerability information, to analyse potential difficulties in carrying out project's activities and delivering results *etc*. Project design changes would be recommended, including costed adaptation options, and determining these would require in-depth participation of stakeholders.

Where there is high confidence of risks that demand further investigation various source should be drawn upon. These include the Country Environment Profile (with an enhanced climate change section) other donors' climate profile reports and partner-government UNFCCC National Communications.

For significant development investments, climate modelling and downscaled impact scenarios may be useful to inform in-depth risk assessment, and may help to identify appropriate adaptation measures. Guidance is provided to this effect in the Handbook, Annex 2.

Part III: Summary of screening outcomes on Two Summary sheets

The following information should be provided as an annex to the project Identification Fiche with the documentation submitted to the Quality Support Group.

Annex to the Project Identification Fiche

Summary of outcomes of environmental and climate-related requirements

1. Screening Outcome for EIA Requirement *(tick as appropriate)*
• Category A/B project: EIA will be undertaken during formulation • Category B project: Environmental aspects addressed during formulation • Category C project: No EIA required. (Residual environmental impacts and/or opportunities to enhance environmental benefits will be addressed during formulation)
Justify briefly on which basis this decision was reached. If further assessment is to be carried out in the formulation study, briefly describe the main types of impacts that will be the subject of such assessment.

2. Screening Outcome of Climate Risk Assessment *(tick as appropriate)*
• High-risk project: further assessment will be conducted in the formulation study through undertaking a specific in-depth climate assessment, as set out in Annex XX of the Environment Integration Handbook • Medium-risk project: further assessment will be conducted in the formulation study • No or Low risk: no further consideration of climate-related risks is needed or minor further assessment will be conducted in the formulation study
Justify briefly on which basis this decision was reached. If further assessment is to be carried out in the formulation study, briefly describe the main types of risks that will be the subject of such assessment.

EXPLANATION ABOUT RISKS FROM *CLIMATE CHANGE* AND *CLIMATE VARIABILITY*

This background text clarifies the concepts behind the questions that have been asked.

1. Given the uncertainties about the future, it may be hard to find answers for the questions asked. For questions about occasional events such as weather disasters that occur in settings where there is often little reliable information, it is difficult to project the estimated probabilities, magnitude or impacts of future events.

2. The Screening Process needs information about the **trends** in the climate and weather, such as the drying and heating of important regions that often result in changing length and intensity of 'normal' seasons and the worsening of normally favourable conditions that exist in ecosystems. This has the potential to disrupt the normal supply of ecosystem services and products on which many human communities depend. Data on the weather variables are usually available from science-based sources, such as national meteorological services. However, what altered weather variables, and their averages over time, mean for societies, economies and natural systems depends on their real vulnerabilities to felt impacts.

3. **Climate variability** is an important concept[16]. The climate may be understood as an overall ecosystem service, that the planet has reliably been providing to humans localities and linked ecosystems. From this perspective, it is possible to collect information from farmers who may complain that the rains now fall in 'different ways', maybe with more intensity, and at what seems to many land-users to be at the wrong time of the farming year. Paying attention to them is not unscientific because it is likely that, in effect, climate change is already making today's weather and the current climate more variable. This problem refers to climate variability, which is the term that describes how weather patterns and climate variables are changing across short time scales. For example, there may be more variable weather during the seasons in a year, or changed patterns are being noticed in the course of just a few years.

4. Variability is different to full-scale **climate change** which can only be stated as happening in scientific terms over the longer term. Scientists develop statistical confidence when certain changes become distinctly noticeable, once the climates, to which humans are accustomed, begin to transition to new regimes. This is because climate should be understood in formal terms as the average weather that occurs during an averaging period of something like 30 years of aggregated weather patterns.

5. Following usual **risk management** thinking, the questions that are more practical on a project timescale relate more to the vulnerability side of climate risk issues. This has to do with the sensitivity of humans and ecosystems and their exposure to trends and hazards. Exposure has both a geographical component and a social aspect, which naturally makes some groups and systems more vulnerable than others. Of particular interest to the European Commission is the issue of preparedness for climate impacts of institutions and their policies, at all scales from local to national, plus of course the avoidance of cases of mal-adaptation.

6. So a key factor to be addressed is the extent of stakeholder capacities to **cope with change**. This is about both: (i) the groups who are involved in EC-supported projects; and, (ii) those that operate within CSP social and economic focal sectors. Following an extreme weather event (a heatwave or a drought) identifying issues that limit adaptation capacities is vital, so that actions may be taken so that responses to repeated events become fully effective.

This is why in the longer term, the **awareness** and **human capacities** of stakeholders are important elements of social capital, which enables appropriate measures to be implemented. These measures will need to be planned to reduce the exposure and sensitivity of human groups, if possible, as well as that of the ecosystems they rely on for products and services.

[16] IPPC Fourth Assessment definition: Climate variability refers to variations in the mean state and other statistics (such as standard deviations, the occurrence of extremes, etc.) of the *climate* on all *spatial and temporal scales* beyond that of individual weather events. Variability may be due to natural internal processes within the *climate system* (*internal variability*), or to variations in natural or *anthropogenic external forcing* (*external variability*).

T. 2 B Project Level Screening – Annex 7 Questionnaire

REQUEST FOR INFORMATION FROM DELEGATIONS

We understand that Brussels EC staff members have been in touch with you about our work. We are contributing to integration of climate change risk management issues within the EC's development assistance. This is important so that climate-related risks, and the extra challenges now faced by development cooperation, may be taken into account during CSP preparation, project formulation and so on.

We have been asked to develop practical approaches for climate risk screening at Country-level and at programme/project level. Tools are being tested for:

1. **Climate Risk Screening** of CSP portfolios and development of options menus for climate risk resilience building within CSPs at national level. Here the intention is to estimate the proportion of EC's aid portfolio that may be potentially under climate risk, as well as comment on how programming may be improved to address climate risk in programming (for example when CSPs and CEPs are being prepared);
2. Further develop a draft tool for **Climate Risk Screening** of ongoing and new EC projects in the pipeline stage , and at later PCM stages such as mid-term reviews; and,
3. For projects identified as climate exposed and sensitive, and/or when stakeholder adaptive capacities are not optimal, we are asked to make a more in-depth climate risk identification and assessment. An objective of this part of the work is to approach the issue of how project-level adaptation measures are identified and costed.

These three work areas are being developed over a sample of nine CSPs and one RSP. The following countries were selected for this pilot Study: Brazil, Egypt, Ethiopia, Guyana, Mali, India, Philippines, Papua New Guinea, Swaziland, in addition to the Central American region. We have looked at the CSP/NIP/MIP and would like to ask for some information to help us resolve some uncertainties concerning projects in your CSP that may be under some degree of climate risk.

We attach a copy of the draft spreadsheet that we have prepared that contains a worksheet called *CSP INITIATIVES + SECTOR ANALYSIS*.

- This holds information about the projects we have looked at from your CSP (and those of the other study countries). You can see that each project is set out as a single row of information.
- Column P holds the Overall Assessed Project Vulnerability. Here **YES** means that this project is in need of in-depth climate **ri**sk screening and **NO** means that it is not.
- We have **us**ed **yes**, **no** and **min** in **lowercase letters**, for the answers we were able to generate to our four sub-questions.
- See the top row of the worksheet, focusing on cells K2/K3 = QUESTION 1, M2/M3 = QUESTION 2, N2/N3 = = QUESTION 3 and O2/O3 = QUESTION 4). These are similar to the four questions that are listed below in this questionnaire though in this document we have phrased the question with more clarity. Each has sub-questions if of course, the information we are requesting is available.
- **Please *add your data directly into the relevant cell* in the spreadsheet.**
- We are aware that you may not be fully confident about the information that is available. In this case, please use standard terms to indicate how comfortable you feel about your statements by using in parentheses the terms- *strong evidence, some evidence, not much evidence, little/no evidence.* For this purpose evidence means the same to us as confidence. If nothing can be said about the issues, that is also important to us, and should be stated.
- The initial focus should be on **climate variability** rather than **climate change**, so we have set out some context and definitions on the final page of this document
- In the following pages you will find that below the questions, we have provided a row in the table where you are able to set out your explanations about the text that you have changed, or the new text you may have added into the relevant cells of the worksheet.

We would be most grateful if this information could be returned to us before 20th May. Many thanks in advance for your help with this.

Richard Pagett, Team Leader – email secure@RichardPagett.com
Mark Kowal, Team Member – email tmkowal@gmail.com

Please use the open area below each question to clarify your spreadsheet responses. If there is more than one project to appraise, please just use the numerals (i), (ii) (iii) in the open area and make clear to which project you are referring.

TO CHECK OUR USE OF **YES**, **NO** OR **MORE-INFO-NEEDED**, AND ADD YOUR TEXT TO ANY WRITTEN ANSWER TO QUESTION 1 THAT WE SUPPLIED, **PLEASE GO TO COLUMN K** OF THE PURPLE-TABBED WORKSHEET - 'CSP INITIATIVES + AND SECTOR ANALYSIS'.

1. WHAT ARE THE POSSIBLE CLIMATE RISKS THAT MAY IMPAIR THE ACHIEVEMENTS OF THE PLANNED OBJECTIVES AND/OR THE SUSTAINABILITY OF THE RESULTS TO BE ACHIEVED?

Note *The initial focus should be on climate variability as well as definite climate change (see note at the end of this questionnaire for explanation/definitions)*

Specifically:
Are climate variability or extreme weather events, which may already happen in the country or may be expected to worsen due to climate change, likely to (directly/ indirectly) affect the **planned outputs and outcomes** at the end of project and the delivery of its continued benefits - say within a five-year period after closure?

Relevant sub-questions are:

- Where is the geographical area where benefits are to be supplied (e.g. low lying, coastal zones, flood prone areas *etc*).
- In the geographical area where benefits are to be supplied, are there potentially-useful and effective climate change response agencies in existence? Likewise, have focal sector agents and authorities implemented disaster risk reduction or climate change response planning? How effective might those plans be to cope with today's immediate climate-related impacts
- With respect to project outputs and outcomes is there some information about which climate impacts might occur on the medium-term timescale, at end of project and in the five years after conclusion? If there is some information, when is it likely that those effects might become significant? What actions could be taken to meet these longer-term challenges?
- How good is access to climate information in studies and research documents that analyse the levels and type of climate risks?
- Would technical inputs and/or M & E work carried out during the project cycle, be able to make use of climate risk information - for example during formulation, mid-term reviews, or at other PCM stages?

YOUR EXPLANATION ABOUT ANY RESPONSE YOU HAVE MADE ON THE SPREADSHEET:

Please explain (if you need to) your changes to our provisional assessment and to any of text we have included in the cells, when you complete and improve the answers about your CSPs projects, to Question 1 at the head of Column K in the spreadsheet:

Project (i):

Project (ii):

Project (iii):

TO CHECK OUR USE OF **YES**, **NO** OR **MORE-INFO-NEEDED**, AND ADD YOUR TEXT TO ANY WRITTEN ANSWER TO QUESTION 2 THAT WE SUPPLIED, **PLEASE GO TO COLUMN M** OF THE PURPLE-TABBED WORKSHEET - 'CSP INITIATIVES + AND SECTOR ANALYSIS'.

2. PROJECT EFFICIENCY UNDER CLIMATE RISK DURING IMPLEMENTATION

Here the issue we want to examine are the effects of climate change impacts – during the project's lifetime - on project partners, on project inputs and necessary assets, as well as on target groups and intended beneficiaries. The issue here relates to **current** sensitivity, exposure, preparedness, and **actual** adaptation capacity levels. Does climate change make up a 'business continuity risk' that requires risk management by project stakeholders?

To answer this question, we have generated a set of sub-questions to consider and respond to - if you have access to this information.

Specifically:

- Does expected climate change constitute a risk that could affect the **activities and components of the initiative** during its lifetime, up to the time of project closure?
- Do the project activity descriptions and analysis show awareness of climate risks, outline approaches to deal with them, explain measures that could reduce vulnerabilities, and set aside some financial resources for climate adaptation measures?
- Are the project partners involved in building awareness and risk management capacities? Do partners have climate risk policies/plans, have they committed resources and built-up institutional arrangements that help to cope and adapt?
- Are any resources that the project activities depend upon potentially affected by climate change impacts, and by increased climate variability?
- Have any limitations been identified in the stakeholders' adaptive capacities? How well developed are project strategies for engaging stakeholders, for example by including groups likely to be vulnerable?

YOUR EXPLANATION ABOUT ANY RESPONSE YOU HAVE MADE ON THE SPREADSHEET:

Please explain (if you need to) your changes to our provisional assessment and any text we have included, when you complete and improve the answers about your CSPs projects, to Question 2 at the head of Column M in the spreadsheet:

Project (i):

Project (ii):

Project (iii):

TO CHECK OUR USE OF **YES**, **NO** OR **MORE-INFO-NEEDED,** AND ADD YOUR TEXT TO ANY WRITTEN ANSWER WE HAVE SUPPLIED, **PLEASE GO TO COLUMN N** OF THE WORKSHEET 'CSP INITIATIVES + AND SECTOR ANALYSIS'.

3. POTENTIAL HARM PRODUCED BY (or related to) THE PROJECT THAT COULD INCREASE LOCAL VULNERABILITIES?

This question deals with how well any climate-related risks and assumptions that are included and listed at purpose-level within the logframe are addressed. The issue here relates to potential mal-adaptation. This occurs if project investments are made that might enhance local vulnerabilities to climate change impacts, rather than reducing them.

Bear in mind that project results and adaptive responses may have unintended, adverse consequences, that outweigh planned benefits. Coping and adaptive responses that are made without consideration for interdependent systems, may increase risks to other climate-sensitive systems i.e. if adaptive responses have adverse consequences for social well-being, by not accounting for equity; this also covers the social acceptability of adaptive responses.

Specifically:

- Is there potential for this project to lead to mal-adaptation?
- Is there potential harm produced by, or related to the project, that could increase local vulnerabilities of final beneficiaries, targeted communities and systems?

For example, a poorly designed agricultural scheme could make farmers invest in intensive crops that rely on irrigation water that is taken from supplies threatened by climate-related effects, such as from depleted rivers fed by glaciers, or taken from forested catchments that are at risk of fire or drought-related mortality.

YOUR RESPONSE

Please explain (if you need to) your changes to our provisional assessment and any text we have included, when you complete and improve the answers about your CSPs projects, to Question 2 at the head of Column M in the spreadsheet:

Project (i):

Project (ii):

Project (iii):

TO CHECK OUR USE OF **YES**, **NO** OR **MORE-INFO-NEEDED,** AND ADD YOUR TEXT TO ANY WRITTEN ANSWER WE HAVE SUPPLIED, **PLEASE GO TO COLUMN O** OF THE PURPLE-TABBED WORKSHEET 'CSP INITIATIVES + AND SECTOR ANALYSIS'.

4. **POSITIVELY, ARE ANY BENEFITS LIKELY THAT MAY REDUCE VULNERABILITIES?**

Specifically:

- Are there project outcomes that might benefit the situation by reducing vulnerabilities of livelihoods and assets?
- Are there any impacts of CC that will offer opportunities to stakeholders that could improve the project situation and might help solve stakeholders' problems i.e. changes that are capable of being turned into new goals, producing benefits and positive future impacts?

YOUR RESPONSE

Please explain (if you need to) your changes to our provisional assessment and any text we have included, when you complete and improve the answers about your CSPs projects, to Question4 at the head of Column O in the spreadsheet:

Project (i):

Project (ii):

Project (iii):

THANK YOU FOR YOUR TIME

EXPLANATION ABOUT RISKS FROM *CLIMATE CHANGE* AND *CLIMATE VARIABILITY*

This background text clarifies the concepts behind the questions we have asked.

1. We realise that given the uncertainties about the future, it may be hard to find answers for the questions we ask. We are asking about rare events like weather disasters occurring in settings where there is often little reliable information. It is difficult to project the estimated probabilities, magnitude or impacts of future events.

2. We are also interested in trends in the climate and weather, such as the drying and heating of important regions that often result in changing length and intensity of 'normal' seasons and the worsening of normally favourable conditions that exist in ecosystems. This has the potential to disrupt the normal supply of ecosystem services and products on which many human communities depend.

3. Climate variability[17]. The climate itself can be understood as an overall ecosystem service that the planet has reliably been providing to humans localities and linked ecosystems. It is not difficult to collect information from farmers who complain that the rains now fall in 'different ways', maybe with more intensity, and at what seems to many land-users to be at the wrong time of the farming year. Paying attention to them is not unscientific, as it is likely that – in effect – climate change is already making today's weather and current climate more variable. This problem refers to climate variability, which is the term that describes how weather patterns and climate variables are changing across shorter time scales – for example *with more variable weather during the seasons in a year, or with changed patterns being noticed in the course of just a few years*.

4. Variability is different to full-scale **climate change**, which we can only state is happening in scientific terms over the longer term. Scientists develop statistical confidence when certain changes become distinctly noticeable, once the climates, that humans are accustomed to, begin to transition to new regimes. This is because climate should be understood in formal terms as the average weather that occurs during an averaging period of something like 30 years of aggregated weather patterns.

5. Following usual risk management thinking, we want to point out that the questions that interest us relate more to the vulnerability side of climate risk issues. This has to do with the sensitivity of humans and ecosystems and their exposure to trends and hazards. Exposure has both a geographical component and a social aspect, which naturally makes some groups and systems more vulnerable than others. Of particular interest to the European Commission is the issue of the readiness for climate impacts of institutions and their policies, at all scales from local to national, plus of course the avoidance of cases of mal-adaptation.

6. So a key factor we are interested in is the extent of stakeholder capacities to cope with change. This is about both: (i) the groups who are involved in EC-supported projects and; (ii) those that operate within CSP social and economic focal sectors. Identifying issues that limit adaptation capacities is vital for ensuring that the responses to short-term impacts and consequences following an weather event are fully effective.

This is why in the longer term, the **awareness** and **human capacities** of stakeholders are important elements of social capital, which enables appropriate measures to be implemented. These measures will need to be planned to reduce the exposure and sensitivity of human groups, if possible, as well as that of the ecosystems they rely on for products and services.

[17] IPPC Fourth Assessment definition: Climate variability refers to variations in the mean state and other statistics (such as standard deviations, the occurrence of extremes, etc.) of the *climate* on all *spatial and temporal scales* beyond that of individual weather events. Variability may be due to natural internal processes within the *climate system* (*internal variability*), or to variations in natural or *anthropogenic external forcing* (*external variability*).

T. 2 C Project Level Screening – Philippines: Mindanao Trust Fund

SECTOR AND PROJECT SCREENING					
KEY: **Yes** - indicates need to assess this aspect of the programme/project as it is likely to pose some risk **No** - indicates confidence that this aspect is resilient to CC effects **Min** - indicates more info is needed. **YES** or **NO** in capitals indicates overall assessment under expert judgement with current data		**PROJECT BENEFITS UNDER CLIMATE RISK** **Effects of climate impacts on project deliverables and medium-term outcomes and benefits**	**PROJECT EFFECTIVENESS UNDER CLIMATE RISK** **Effects of climate change impacts on project partners, inputs, necessary assets and intended beneficiaries**	**PROJECT CAUSING ADVERSE SUSTAINABILITY** **Potential harm produced by the project that could increase local vulnerabilities**	**PROJECT CAUSING POSITIVE SUSTAINABILITY** **Benefits for vulnerability reduction**
	OPERATING IN SECTOR VULNERABLE TO: • Climate Variability (CV) • Extreme Weather (EW) • Future Change (FC)	(i) Are the anticipated impacts of climate change, variability or extreme weather likely to directly/indirectly affect the planned deliverables at the end of project implementation) and the delivery of continued benefits during the subsequent five-year period?	(ii) Does expected climate change constitute a risk that could affect the outputs and components of the initiative? (iii) Is realised climate risk likely to directly/indirectly worsen the vulnerability of beneficiaries, ecosystems and related assets?	(iv) Is there potential for the project to increase local vulnerabilities of final beneficiaries, targeted communities and systems?	(v) What potential is there for project outcomes to improve vulnerabilities of livelihoods and assets?
Support to MINDANAO TRUST FUND - Reconstruction and Development Programme					
The overall objective of the Mindanao Trust Fund (MTF) is to contribute to peace and development in the Philippines. The programme purpose is the reconstruction and development of conflict-affected areas in Mindanao focussed on the restoration of social services. MTF works through the Bangsamoro Development Agency, which has had its management capacity boosted towards supporting LGUs and other development partners – who in turn are beginning to find and apply resources to	**ORIGINAL ASSUMPTION BASED ON CSP**				
	NO	**MIN**	**NO**	**NO**	**NO**
	REVISED BASED ON INTERVIEWS AND FURTHER DOCUMENTATION				
	NO	**NO**	**NO**	**NO**	**NO**
	JUSTIFICATION				
	Mindanao will experience CV/EW - for example as seen in more frequent typhoons that now further track south to affect northern Mindanao, causing more frequent floods and landslides. Large areas are vulnerable to drought: • DRR via National Disaster Coordination Committee is available to facilitate risk mitigation &	Whilst improved livelihoods outcomes are intrinsic to this programme there is no direct attribution to EC funds CC impacts are likely to increasingly affect the region, particularly the coastal communities who exploit marine resources. While CV is not likely to directly damage the continued flow of MTF benefits themselves, it	Within the lifetime of the MTF programme, it is unlikely that large-scale CV impacts will affect the direct delivery of results and activities, with far larger risks stemming from renewed outbreaks of conflict. The Mindanao landscape of large banana etc plantations on which target groups work as labourers means that few	No - there is almost no likelihood that the project will worsen vulnerabilities. It seeks to alleviate the impacts of social and economic conflict, while being unable to directly reduce inequity in land tenure. There has also been a case where due to presence of the threatened marine dugong DENR has enforced a 500 m exclusion	There is some potential to take advantage of short-term CV benefits, but the key issue is the limited basic access of beneficiaries to environmental resources and natural assets. Activities such as building economic infrastructure to help access such as “tyre passes” (can only be used by small vehicles – not logging trucks) will allow for

SECTOR AND PROJECT SCREENING					
KEY: **Yes** - indicates need to assess this aspect of the programme/project as it is likely to pose some risk **No** - indicates confidence that this aspect is resilient to CC effects **Min** - indicates more info is needed. **YES** or **NO** in capitals indicates overall assessment under expert judgement with current data		**PROJECT BENEFITS UNDER CLIMATE RISK** **Effects of climate impacts on project deliverables and medium-term outcomes and benefits**	**PROJECT EFFECTIVENESS UNDER CLIMATE RISK** **Effects of climate change impacts on project partners, inputs, necessary assets and intended beneficiaries**	**PROJECT CAUSING ADVERSE SUSTAINABILITY** **Potential harm produced by the project that could increase local vulnerabilities**	**PROJECT CAUSING POSITIVE SUSTAINABILITY** **Benefits for vulnerability reduction**
	OPERATING IN SECTOR VULNERABLE TO: • Climate Variability (CV) • Extreme Weather (EW) • Future Change (FC)	(i) Are the anticipated impacts of climate change, variability or extreme weather likely to directly/indirectly affect the planned deliverables at the end of project implementation) and the delivery of continued benefits during the subsequent five-year period?	(ii) Does expected climate change constitute a risk that could affect the outputs and components of the initiative? (iii) Is realised climate risk likely to directly/indirectly worsen the vulnerability of beneficiaries, ecosystems and related assets?	(iv) Is there potential for the project to increase local vulnerabilities of final beneficiaries, targeted communities and systems?	(v) What potential is there for project outcomes to improve vulnerabilities of livelihoods and assets?
implement community sub-projects. Priority areas: • Governance and institutions – particularly conflict resolution • LGUs and partner implementation capacities • Economic status of those affected by conflict • Improved livelihoods of both rural and urban poor • Infrastructure: construction of roads and bridges • Finance and private sector	adaptation though the 2005 World Bank Joint Needs Assessment did not focus on climate change as an element determining vulnerability • BDA seeks to build capacity for Local Government Units to deliver services and become good first responders during disasters • Only 1 M PHP/€ 16 K is likely to be made available per community (baranguay) • Next stage of MTF's work involves roll out of the Learning, Livelihood and Food Security (LLFS) programme, set to target illiterate and semi-literate groups (reducing their vulnerability) so they can put together business plans.	may increasingly affect the natural assets themselves, via debris flooding in deforested catchments, landslides and droughts. Conflict-related difficulties in achieving wider uptake of the good-quality local governance (that have been fostered during training and development of community investment plans) will be a continued critical risk, far out-stripping any CV risks into the medium term.	people count on basic access to significant areas of their own land, meaning that livelihood options open for MTF to support better livelihoods are very restricted by this highly unequal land distribution. This also means that MTF's potential vulnerability-reductions results are much more likely to be limited by this basic context, than by any CV impacts.	zone strictly via net size, further cutting options for local people.	economic diversification, key to limiting vulnerability to hazards. Villagers also want to take up options to harvest timber and forest products from supposed Community Forestry areas, that are unmanaged due to DENR lack of support and difficulty in locating areas supposed to be under community forestry.

T. 2 D Project Level Screening – Philippines: Health Sector Policy Support Programme - Phase I

SECTOR AND PROJECT SCREENING					
KEY: **Yes** - indicates need to assess this aspect of the programme/project as it is likely to pose some risk **No** - indicates confidence that this aspect is resilient to CC effects **Min** - indicates more info is needed. **YES** or **NO** in capitals indicates overall assessment under expert judgement with current data		**PROJECT BENEFITS UNDER CLIMATE RISK** **Effects of climate impacts on project deliverables and medium-term outcomes and benefits**	**PROJECT EFFECTIVENESS UNDER CLIMATE RISK** **Effects of climate change impacts on project partners, inputs, necessary assets and intended beneficiaries**	**PROJECT CAUSING ADVERSE SUSTAINABILITY** **Potential harm produced by the project that could increase local vulnerabilities**	**PROJECT CAUSING POSITIVE SUSTAINABILITY** **Benefits for vulnerability reduction**
	OPERATING IN SECTOR VULNERABLE TO: • Climate Variability (CV) • Extreme Weather (EW) • Future Change (FC)	Are the anticipated impacts of climate change, variability or extreme weather likely to directly/indirectly affect the planned deliverables at the end of project implementation) and the delivery of continued benefits during the subsequent, five-year period?	Is realised climate risk likely to directly/indirectly worsen the ability of project partners and intended beneficiaries to participate?	Is there potential for the project to increase local vulnerabilities of final beneficiaries or ecosystems (mal-adaptation) to climate change related risks?	What potential is there for project outcomes to improve due to climate change
Health Sector Policy Support Programme - Phase I					
To increase the access to and utilisation of equitable and efficient, quality health services and to consolidate and further develop health sector reform achievements in Local Health Systems Development; Health Financing; Public Health; Hospital reforms; Regulation; health sector governance; human resource strategies; monitoring and evaluation.	**ORIGINAL ASSUMPTION BASED ON CSP**				
	Yes	**Yes**	**Min**	**No**	**No**
	REVISED BASED ON INTERVIEWS AND FURTHER DOCUMENTATION				
	NO	**NO**	**NO**	**NO**	**NO**
	JUSTIFICATION				
	Intervention is only supporting government programme: Service Delivery to any significant extent [€23 M] other areas: Health Care, Governance, Financing and Regulation are € 10 M and not CC exposed. Of €23 M, € 5 M is for equipment ~ not exposed. So € 15 M for infrastructure of which approx. €3 M is for refurbishment ~ no exposure. Potentially exposed is € 10 M of which none actually exposed (see adjacent information).	Potential CC, CV or EW overcome through appropriate • Appropriate siting based on hazard risk • Appropriate design for EW *etc* • Construction CC-best practice through Building Regulations and Inspection	As defined in the reviewed sample of Provincial Rationalisation Plans, infrastructure are likely to be: • Be functional throughout design life and lessen vulnerability of beneficiaries • Facilitate operational (business) continuity	• No potential for mal-adaptation • No potential increase of local vulnerabilities of final beneficiaries, targeted communities or systems	Infrastructure should reduce vulnerability of livelihoods and assets Double role of health facilities in disaster evacuation roles means that the improved infrastructure is likely to improve immediate response capacities Due to increased weather-related disease spread is likely to mean that the benefits of the HSPSP continue to have high relevance

T. 2 E Project Level Screening – Annex 7: Philippines: Health SPSP - Phase I

NOTE: The testing below focuses only on the "project-like" element of the Health Reform Support i.e. with definable activities, specifically the Phase 1 element that deals with 16 provinces and part of which deals with infrastructure (new build rather than refurbishment). Though it is not a project in a conventional sense it just has a bit more definition than subsequent phases. N. B. The changes advocated in Appendix T 2 A to the format of Annex 7 were not taken into account

Part II: Climate Risk Screening

		Yes (Study Team)	Delegation Comment	Study Team Response
1	**Will the project be carried out in certain geographical areas**[18]	Various provinces have one or more of the areas considered as typically sensitive to climate risk		
	Will the project be carried out in certain sectors of activity[19]	Part of the project may be nominally classified in the following sector: • Human Health		
	Will the project be particularly exposed to the effects of climate variability and change[20]	Various provinces are already experiencing CC and CV.		
2	**Based on available knowledge, can you identify specific effects concerning the area of intervention that the project will be directly exposed to?**	Predominately flooding when current (refurbished) health facilities are located close to river courses or on flood plains.	accessibility and timely delivery of services might be affected	**Agreed**

[18] High mountainous regions, Regions depending on water from mountainous regions, Flood plains, River deltas, Coastal regions, Small island states, Arid and semi-arid regions, Tundra regions

[19] Agriculture and Rural Development; Animal Health; Energy; Environment; Forestry; Fisheries; Human Health; Infrastructure; Transport; Urban development; Waste management; Water resources

[20] Such as variations in (average and/or extreme) temperature and rainfall patterns; increased frequency and/or severity of droughts, floods), landslides, storms, hurricanes, cyclones, heat waves, wildfires, disease and pest outbreaks, etc; acceleration in desertification and soil erosion processes rise in sea level and increased coastal erosion; Reduced availability of water (e.g. changes in river flows, reduced precipitation, melting glaciers, salinity intrusions), decrease in water quality; Decreases in crop yields, in forestry yields, in fish catches, in the productivity of livestock breeding and fish farms. Sources of information on the effects of climate variability and climate change are given in Annex 11.

		Yes (Study Team)	Delegation Comment	Study Team Response
		Landslides could also be a hazard when health facilities are located close to hill slopes or at the foot of hills Vulnerable communities may face increased risks of weather-related disasters and altered patterns of climate-related diseases.		

If the reply to these questions is **YES** (or in case of a Y and a?), questions 3 to 6 should be answered.

		Yes	Delegation Comment	Study Team Response
3	**~~Are~~ Could the project design, implementation modalities and activities ~~exempt from elements that~~: a) ~~might~~ directly or indirectly hinder climate risks reduction and b) potentially exacerbate project / community/ ecosystem risk exposure to climate extreme event and variability (refer to EIA screening questionnaire, questions n° 3, 8,12,15, 16)**	The project component under most CV risk is the Rural Health Units many of which are being upgraded into two kinds of Obstetric Health Facility. This is codified by DoH via Rationalisation Plans that mandate a mix of (mostly) rehabilitation and newly built facilities	Not sure if this is the right answer to the question. I can't see any reason why a health facility hinders climate change reduction. The facility will rather be exposed to climate hazards no? I think there is a need to restructure the question along the line of mitigating impact of climate change risks. In the succeeding questions, however, this was the case	**Agreed, poorly constructed question which has been addressed in the *General Comments* on ANNEX 7**
	Risks and assumptions are ~~not~~ addressed or poorly addressed in the project design.	Flood and landslide risks to health facilities are likely to be overcome through: • Appropriate siting and building design may be assumed to be effective to a certain extent (this is a key assumption) • Construction CC best practice through Building Regulations		

		Yes	Delegation Comment	Study Team Response
		and Inspection • Community-based agreement including vulnerable groups such as indigenous peoples		
	Stakeholders engagement strategy well ~~poorly~~ developed including ~~excluding~~ vulnerable groups	Indigenous coping strategies understood and would be built upon. Role of some health facilities as evacuation centres and treating those affected will likely involve stakeholders to some extent		
	~~No~~ Mid-term review foreseen.	Mid Term Review was completed 2009, though this made no mention of any climate risk facing health facilities		
	~~No~~ Periodic reviews of risks and assumptions and implementation strategies built into the project design	Mediated through DOH Annual Procurement Plans Province level strategic plans demonstrate some understanding of the importance of correct facilities siting and of management of health sanitary wastes		
	~~No~~ Plans exist to ensure the project has access to information and analysis to enable effective risk management	Building a GIS to enable multi-layered information to be readily available		
4	**Are there meaningful references to climate risks in the project support documents?** No project support documents per se	Financing agreement does not mention climate risks	**Should be No then**	**Agreed**
	Problem analysis demonstrates awareness of climate risks	• Appropriate building design and facilities siting may be implicitly assumed •		
	Project description outlines general approach to deal with climate risks	• Appropriate siting / design		

		Yes	Delegation Comment	Study Team Response
	Project description already foresees specific measures to strengthen resilience and reduce vulnerability including by improving knowledge relating to climate risks (including capacity building/training/awareness raising, stakeholder engagement)	DOH foresees specific measures to strengthen resilience and reduce vulnerability by working with indigenous knowledge relating to climate risks (including capacity building *etc*). Role of health sector in DRM at Province level includes use of health facilities as evacuation centres when needed		
	Project design already sets aside financial resources to support climate risk mitigation adaptation measures	Has triggered use of United Architects	**Not so clear**	**United Architects retained to project design advice which is to include issues related to CC**
5	**At this stage is there evidence that the project partners have the necessary awareness and institutional capacity to address climate risks?**			
	Project partners are building awareness/staff capacities in the area of climate risks mitigation disaster risk prevention and preparedness	DoH carried out a vulnerability study of 77 hospitals, looking at infrastructure issues largely in urban centres. Likely that local health policy makers at province level are aware of health concerns due to exposure to extreme events in vulnerable regions	Doubt that FPE would relate to this programme. No mention I can recall in project docs of links to NGOs	**Agreed**
	Project partners have put in place policies and plans to deal with climate risks	Feasibility studies under Provincial Govt codes are mandatory for new build that look at issues like soil type, drainage, location with respect to flood plains and landslide zones. If applied, then this mitigates any assumed level of risk.	Again we don't know if Klima could have a role or would become involved. My impression was that they were working at a higher level and wouldn't help out a sector level in this way.	**Agreed**
	Project partners have committed resources on implementing those policies and plans			

		Yes	Delegation Comment	Study Team Response
	(including information gathering, risk management, stakeholder engagement)			
	Project partners have put in place institutional/organisational arrangements to deal with climate change.			
	Project partner actively participates in cross-sector / public-private/ international coordination efforts to deal with climate change (including NAPA, GCCA etc) (Philippines not an LDC or a priority country for GCCA)		How about the DoH's climate change working group?	**Issue not raised by DoH**
6	**Are you aware of any existing/planned risk management programmes or policy instruments that could directly support the project's climate risks mitigation needs?**	Climate Change Bill and the various institutional changes that are anticipated as a result With regard to health effects from changing climate, currently, no mapping of waterborne diseases per se as the emphasis is on declaring malaria-free zones. Environmental control of mosquitoes is through spraying programmes and provision of nets.		
	Disaster prevention and preparedness plans (FEWERS - Early warning system, monitoring and analysis) established in the area of intervention and operational	Disaster Risk Reduction comes under the National Disaster Coordinating Council		
	Adaptation projects underway (NAPA, GCCA)	(Philippines not an LDC or a priority country for GCCA)		
	Policy instruments / programmes / plans in place to strengthen resilience and mitigate risks such as in the area of access to credit and insurance targeting vulnerable groups	DOH has a Health Care Financing component to its Heath sector Reform		

§ If a reply to one of the first two questions above is negative ~~positive~~ then the project (or elements) should be classified as either **MEDIUM** or **HIGH** risk, depending on whether the achievement of project results and objectives could be only moderately or significantly affected. Actual degree of vulnerability will be a function of the capacities and measures already in place or planned to deal with the identified concerns at the policy, institutional and project levels (questions 3-6). A majority of negative ~~positive~~ replies to questions 3-6 is therefore likely to lower the level of risk.

Yes	Delegation Comment	Study Team Response
	§ I find this confusing. What is the conclusion for the programme?	**Agreed, poorly constructed question which has been addressed in the *General Comments* on ANNEX 7**

T. 2 F Project Level Screening – Papua New Guinea: Rural Economic Development

SECTOR AND PROJECT SCREENING					
KEY: **Yes** - indicates need to assess this aspect of the programme/project as it is likely to pose some risk **No** - indicates confidence that this aspect is resilient to CC effects **Min** - indicates more info is needed. **YES** or **NO** in capitals indicates overall assessment under expert judgement with current data		**PROJECT BENEFITS UNDER CLIMATE RISK** **Effects of climate impacts on project deliverables and medium-term outcomes and benefits**	**PROJECT EFFECTIVENESS UNDER CLIMATE RISK** **Effects of climate change impacts on project partners, inputs, necessary assets and intended beneficiaries**	**PROJECT CAUSING ADVERSE SUSTAINABILITY** **Potential harm produced by the project that could increase local vulnerabilities**	**PROJECT CAUSING POSITIVE SUSTAINABILITY** **Benefits for vulnerability reduction**
	OPERATING IN SECTOR VULNERABLE TO: • Climate Variability (CV) • Extreme Weather (EW) • Future Change (FC)	Are the anticipated impacts of climate change, variability or extreme weather likely to directly/indirectly affect the planned deliverables at the end of project implementation) and the delivery of continued benefits during the subsequent, five-year period?	Is realised climate risk likely to directly/indirectly worsen the ability of project partners and intended beneficiaries to participate?	Is there potential for the project to increase local vulnerabilities of final beneficiaries, targeted communities and systems?	What potential is there for project outcomes to improve vulnerabilities of livelihoods and assets?
Rural Economic Development					
Purpose: to improve livelihoods of rural populations by enhancing integration of rural communities into wider markets. Improvement of local development planning with stakeholders and Infrastructure upgrading. Improved access to market and economic opportunity information in rural areas Technical support to	**ORIGINAL ASSUMPTION BASED ON CSP**				
	Yes	**Yes**	**Yes**	**No**	**Yes**
	REVISED BASED ON INTERVIEWS AND FURTHER DOCUMENTATION				
	YES (precautionary)	**YES (precautionary)**	**NO**	**NO**	**NO**
	JUSTIFICATION				
	CV, EW and FC potentially can significantly affect rural development. EC interventions intend to stimulate rural economic development through grants that support local government organisations for example to build infrastructure, such as bridges in Highlands and roads in Lowlands. Likely that highlands and lowlands will be subject to events triggered or related to CC, though climate models do not provide clear	Infrastructure is under potential risk. The test will be during implementation; in the siting, design and construction control of the infrastructure. Similarly, agriculture, fisheries and forest are nominally exposed to CC but the risk itself depends on the precise nature of the intervention. Key assumption is that District level planners are able to understand the importance of	The ability of project partners and/or beneficiaries to participate would be due to physical changes due to CC e.g. landslides, flooding or droughts. Landslides could impede to travel, and this is already a significant issue that affects current commerce. Droughts and flooding could reduce farm yields and rural incomes. Hazard mapping at District level would help ensure	Building infrastructure and supporting actions in agriculture, fisheries and forestry are designed to reduce vulnerability. It is therefore unlikely that any elements of this project would lead to mal-adaptation that increases local vulnerability.	Project seeks to build the resilience of rural livelihoods by building infrastructure and by supporting actions in agriculture, fisheries and forestry. The better integration of communities with markets is likely to lead to greater ability of rural communities to respond to opportunities opened by climate change, such as the ability to grow different crops due to the warming of what have been cool elevations.

SECTOR AND PROJECT SCREENING					
KEY: **Yes** - indicates need to assess this aspect of the programme/project as it is likely to pose some risk **No** - indicates confidence that this aspect is resilient to CC effects **Min** - indicates more info is needed. **YES** or **NO** in capitals indicates overall assessment under expert judgement with current data		**PROJECT BENEFITS UNDER CLIMATE RISK** **Effects of climate impacts on project deliverables and medium-term outcomes and benefits**	**PROJECT EFFECTIVENESS UNDER CLIMATE RISK** **Effects of climate change impacts on project partners, inputs, necessary assets and intended beneficiaries**	**PROJECT CAUSING ADVERSE SUSTAINABILITY** **Potential harm produced by the project that could increase local vulnerabilities**	**PROJECT CAUSING POSITIVE SUSTAINABILITY** **Benefits for vulnerability reduction**
	OPERATING IN SECTOR VULNERABLE TO: • Climate Variability (CV) • Extreme Weather (EW) • Future Change (FC)	Are the anticipated impacts of climate change, variability or extreme weather likely to directly/indirectly affect the planned deliverables at the end of project implementation) and the delivery of continued benefits during the subsequent, five-year period?	Is realised climate risk likely to directly/indirectly worsen the ability of project partners and intended beneficiaries to participate?	Is there potential for the project to increase local vulnerabilities of final beneficiaries, targeted communities and systems?	What potential is there for project outcomes to improve vulnerabilities of livelihoods and assets?
income-generating activities in agriculture, fisheries and forestry. Strengthening of rural cooperatives systems and of the value added chain in marketing, such as development of local processing facilities to boost benefits for small towns.	signals as to the direction and magnitude of rainfall changes. Some support is for agriculture, fisheries and forestry to be aligned as District Development Plans are developed.	disaster risk mitigation and how climate change could affect settlement patterns, human health and opportunities for crops and the sustainability of livelihoods activities. In-depth training in DRR and CRM is likely to provide significant benefits in terms of problem analysis in grant applications and climate/disaster risk management during subsequent project implementation.	that investments were sited in less exposed settings. Farm diversification, increased assets and improved local processing will mean that the livelihoods of beneficiaries become more resilient.		

T. 2 G Project Level Screening – Papua New Guinea: Rural Water Supply and Sanitation

SECTOR AND PROJECT SCREENING					
KEY: **Yes** - indicates need to assess this aspect of the programme/project as it is likely to pose some risk **No** - indicates confidence that this aspect is resilient to CC effects **Min** - indicates more info is needed. **YES** or **NO** in capitals indicates overall assessment under expert judgement with current data		**PROJECT BENEFITS UNDER CLIMATE RISK** **Effects of climate impacts on project deliverables and medium-term outcomes and benefits**	**PROJECT EFFECTIVENESS UNDER CLIMATE RISK** **Effects of climate change impacts on project partners, inputs, necessary assets and intended beneficiaries**	**PROJECT CAUSING ADVERSE SUSTAINABILITY** **Potential harm produced by the project that could increase local vulnerabilities**	**PROJECT CAUSING POSITIVE SUSTAINABILITY** **Benefits for vulnerability reduction**
	OPERATING IN SECTOR VULNERABLE TO: • Climate Variability (CV) • Extreme Weather (EW) • Future Change (FC)	Are the anticipated impacts of climate change, variability or extreme weather likely to directly/indirectly affect the planned deliverables at the end of project implementation) and the delivery of continued benefits during the subsequent, five-year period?	Is realised climate risk likely to directly/indirectly worsen the ability of project partners and intended beneficiaries to participate?	Is there potential for the project to increase local vulnerabilities of final beneficiaries, targeted communities and systems?	What potential is there for project outcomes to improve vulnerabilities of livelihoods and assets?
Rural Water Supply and Sanitation Phase I					
The project is to improve the health of rural communities through provision of increased access to safe water supply and sanitation facilities. Installation of sustainable community-managed RWSS schemes with training of beneficiary communities in health/hygiene	**ORIGINAL ASSUMPTION BASED ON CSP** **Is a 9th EDF intervention ~ used as an example of a project** **REVISED BASED ON INTERVIEWS AND FURTHER DOCUMENTATION**				
	NO	**NO**	**NO**	**NO**	**NO**
	JUSTIFICATION				
	CV, EW and FC inevitable affect any RWSS because the amount of rain may be more or less than needed in the case of WS and could in the event of flooding bring faecal material out of the pits. Currently the project designs are such that there is ample capacity of the rain storage tanks to allow users to go through the dry season with a full range of water-needed activities (drinking, washing and cooking). The pits are deep enough to overcome flooding.	No clear view on what the anticipated CC and CV are likely to be	The WS and S are located very close to users so once installed are accessible. The rainy season rains do isolate communities so it is necessary to plan ahead (as done now) and bring in materials *etc* during the dry season. The biggest impediment to this is slow response time of Brussels after the provision of documentation from the beneficiaries.	The project itself improves vulnerability however the slowness of Brussels could and does increase vulnerability	The project *raison d'etre* is to improve vulnerability

T. 2 H Project Level Screening – Annex 7: Papua New Guinea: Rural Water Supply and Sanitation

N.B. The changes advocated in Appendix T 2 A to the format of Annex 7 were not taken into account

Part II: Climate Risk Screening

		Yes	No
1	**Will the project be carried out in certain geographical areas**[21]	Regions depending on water from mountainous regions Flood plains	
	Will the project be carried out in certain sectors of activity[22]	Agriculture and Rural Development Human Health Water Resources	
	Will the project be particularly exposed to the effects of climate variability and change[23]	Additional rain could benefit project outcomes if greater rainfall falls in highland watersheds where low rainfall has impeded delivery of improved water supplies. Droughts conversely will cause both greater uptake of for example, rainfall harvesting systems, while – if extreme drought occurs – not then providing a definitive response.	
2	**Based on available knowledge, can you identify specific effects concerning the area of intervention**	World Bank portal data projects for PNG 2% annual rainfall in the period 2031-50, 15% greater runoff, 1.3 C temperature and negligible rise in drought severity	

[21] High mountainous regions, Regions depending on water from mountainous regions, Flood plains, River deltas, Coastal regions, Small island states, Arid and semi-arid regions, Tundra regions

[22] Agriculture and Rural Development; Animal Health; Energy; Environment; Forestry; Fisheries; Human Health; Infrastructure; Transport; Urban development; Waste management; Water resources

[23] Such as variations in (average and/or extreme) temperature and rainfall patterns; increased frequency and/or severity of droughts, floods), landslides, storms, hurricanes, cyclones, heat waves, wildfires, disease and pest outbreaks, etc; acceleration in desertification and soil erosion processes rise in sea level and increased coastal erosion; Reduced availability of water (e.g. changes in river flows, reduced precipitation, melting glaciers, salinity intrusions), decrease in water quality; Decreases in crop yields, in forestry yields, in fish catches, in the productivity of livestock breeding and fish farms. Sources of information on the effects of climate variability and climate change are given in Annex 11.

		Yes	No
	that the project will be directly exposed to?	and frequency. While this time period is far in the future, climate variability already noted includes vulnerability to flash floods, far greater unpredictability in the dates of onset and conclusion of typical rainy season and altered rainfall distribution. PNGIMR surveys (Mueller pers com) have concluded that rising temperatures will increasingly make malaria spread beyond today's areas of endemism in coastal provinces. By 2030, endemic malaria will be prevalent up to 1530 m above sea level; by 2050 up to 1750 m, putting large populations at greater risk.	

If the reply to these questions is **YES** (or in case of a Y and a?), questions 3 to 6 should be answered.

		Yes	?	No
3	**~~Are~~ Could the project design, implementation modalities and activities ~~exempt from elements that~~:** **a) ~~might~~ directly or indirectly hinder climate risks reduction and** **b) potentially exacerbate project / community/ ecosystem risk exposure to climate extreme event and variability**			(a) Project works to enable climate change adaptation and risk reduction. (b) Directly seeks to reduce local vulnerability by boosting communities' access to water so that human health improves.
	Risks and assumptions are ~~not~~ addressed or poorly addressed in the project design.	Materials can be brought in during dry season to take advantage of time when villages are cut-off.		
	Stakeholders engagement strategy well ~~poorly~~ developed including ~~excluding~~ vulnerable groups	Community-based delivery and management		
	~~No~~ Mid-term review foreseen.	Mid Term Review was positive		
	~~No~~ Periodic reviews of risks and assumptions and implementation strategies built into the project design	Via Delegation monitoring and MTR. Adjustments have been made to ensure the communities buy into the process		

		Yes	?	No
	~~No~~ Plans exist to ensure the project has access to information and analysis to enable effective risk management	Good community-based framework for delivery, that involves plentiful participation via non-state actors who undertake the activities and support community learning.		
4	**Are there meaningful references to climate risks in the project support documents?**	There may be little need for specific in-depth references to climate risks – the context in which the project is undertaken already factors in climate as a cause of water scarcity.		
	Problem analysis demonstrates awareness of climate risks	Argument could be made that the project is already partly directed at adaptation to climate variability, in that the earlier practices for accessing water suffer extreme limitations and cause poor health. Communities already note that one of their key risks in accessing water is drought-induced scarcity.		Problem analysis concerns the health problems due to limited access to improved water supplies. No, Prior to EC interest in CC
	Project description outlines general approach to deal with climate risks			No – risks included were potential lack of government cooperation with non-state and the role of health departments. Both assumptions held positive in Phase 1 with all required actors taking part as expected.
	Project description already foresees specific measures to strengthen resilience and reduce vulnerability including by improving knowledge relating to climate risks (including capacity building/training/awareness raising, stakeholder engagement)	The purpose of the project is to reduce vulnerabilities related to water/health linkages. Considerable work in Phase 1 showed that the key assumptions held true and that general family/community vulnerability could be reduced significantly by the set of actions undertaken.		
	Project design already sets aside financial resources to support climate risk mitigation adaptation measures			No - prior to EC interest in CC
5	**At this stage is there evidence that the project partners have the necessary awareness and institutional capacity to address climate risks?**			

		Yes	?	No
	Project partners are building awareness/staff capacities in the area of climate risks mitigation disaster risk prevention and preparedness	Community leaders are aware of climate change; project will need to build on this. NSAs, community leaders and local government could be better engaged in this topic to review any potential impacts of disasters on RWSS infrastructure and review any adaptation measures that could be needed, specifically in the case of resilience to floods and droughts.		
	Project partners have put in place policies and plans to deal with climate risks	Not known, but NSAs may have their internal systems and perspectives on climate risk management.		
	Project partners have committed resources on implementing those policies and plans (including information gathering, risk management, stakeholder engagement)	Not known in detail. Some confidence that it could be the case that NSAs could commit some further resources for CC adaptation plans. NSAs likely could be fairly easily engaged in more in-depth analysis of the impacts of CV on human health and on delivery of improved water supplies.		
	Project partners have put in place institutional/organisational arrangements to deal with climate change.	Not known in detail.		
	Project partner actively participates in cross-sector / public-private/ international coordination efforts to deal with climate change (including NAPA, GCCA etc)	Not known in detail.		
6	**Are you aware of any existing/planned risk management programmes or policy instruments that could directly support the project's climate risks mitigation needs?**			
	Disaster prevention and preparedness plans (FEWERS - Early warning system, monitoring and analysis) established in the area of intervention and operational	Disaster risk is a limited concern in carrying out project activities, compared with the large issue of EC project funding and approvals that needs to be delivered more effectively and faster to keep people motivated and avoid the impacts of		

		Yes	?	No
		cost inflation during long waiting periods for disbursement. Some hydrological equipment being provided to Department of Environmental and Conservation (DEC) Only one hydrologist in PNG who has been promoted away from the field ~ no one else to operationalise		
	Adaptation projects underway (NAPA, GCCA)	None known specifically in RWSS areas.		
	Policy instruments / programmes / plans in place to strengthen resilience and mitigate risks such as in the area of access to credit and insurance targeting vulnerable groups	Yes - communities have to raise 10% of project cost as co-funding, and this ensures that they value the infrastructure and ensures much better long-term maintenance.		

T. 2 I Project Level Screening – Egypt: revisions

SECTOR AND PROJECT SCREENING					
KEY: **Yes** - indicates need to assess this aspect of the programme/project as it is likely to pose some risk **No** - indicates confidence that this aspect is resilient to CC effects **Min** - indicates more info is needed. **YES** or **NO** in capitals indicates overall assessment under expert judgement with current data		**PROJECT BENEFITS UNDER CLIMATE RISK** **Effects of climate impacts on project deliverables and medium-term outcomes and benefits**	**PROJECT EFFECTIVENESS UNDER CLIMATE RISK** **Effects of climate change impacts on project partners, inputs, necessary assets and intended beneficiaries**	**PROJECT CAUSING ADVERSE SUSTAINABILITY** **Potential harm produced by the project that could increase local vulnerabilities**	**PROJECT CAUSING POSITIVE SUSTAINABILITY** **Benefits for vulnerability reduction**
	OPERATING IN SECTOR VULNERABLE TO: • Climate Variability (CV) • Extreme Weather (EW) • Future Change (FC)	Are the anticipated impacts of climate change, variability or extreme weather likely to directly/indirectly affect the planned deliverables at the end of project implementation) and the delivery of continued benefits during the subsequent, five-year period?	Is realised climate risk likely to directly/indirectly worsen the ability of project partners and intended beneficiaries to participate?	Is there potential for the project to increase local vulnerabilities of final beneficiaries or ecosystems (mal-adaptation) to climate change related risks?	What potential is there for project outcomes to improve due to climate change
Targeted Support for Sector Reforms –Transport					
Support in the fields of transport (railway restructuring, maritime safety and security, aviation market liberalisation and its safety and security, Preparation of legislation and administrative capacity-building, including development of regulatory bodies and regulatory convergence with Mediterranean partners and the EU)), promotion of energy efficiency and renewable energy sources, the environment (legislative reform, administrative capacity-building at central and local levels and infrastructure projects) and the information society (strengthening of regulatory bodies and capacity-building of public bodies).	**ORIGINAL ASSUMPTION BASED ON CSP**				
	Yes	**Yes**	**No**	**No**	**Yes**
	REVISED BASED ON FURTHER DOCUMENTATION				
	Yes	**Yes**	**No**	**No**	**Yes**
	JUSTIFICATION				

SECTOR AND PROJECT SCREENING					
KEY: **Yes** - indicates need to assess this aspect of the programme/project as it is likely to pose some risk **No** - indicates confidence that this aspect is resilient to CC effects **Min** - indicates more info is needed. **YES** or **NO** in capitals indicates overall assessment under expert judgement with current data		**PROJECT BENEFITS UNDER CLIMATE RISK** **Effects of climate impacts on project deliverables and medium-term outcomes and benefits**	**PROJECT EFFECTIVENESS UNDER CLIMATE RISK** **Effects of climate change impacts on project partners, inputs, necessary assets and intended beneficiaries**	**PROJECT CAUSING ADVERSE SUSTAINABILITY** **Potential harm produced by the project that could increase local vulnerabilities**	**PROJECT CAUSING POSITIVE SUSTAINABILITY** **Benefits for vulnerability reduction**
	OPERATING IN SECTOR VULNERABLE TO: • Climate Variability (CV) • Extreme Weather (EW) • Future Change (FC)	Are the anticipated impacts of climate change, variability or extreme weather likely to directly/indirectly affect the planned deliverables at the end of project implementation) and the delivery of continued benefits during the subsequent, five-year period?	Is realised climate risk likely to directly/indirectly worsen the ability of project partners and intended beneficiaries to participate?	Is there potential for the project to increase local vulnerabilities of final beneficiaries or ecosystems (mal-adaptation) to climate change related risks?	What potential is there for project outcomes to improve due to climate change
Support to Rural Development					
The Support to Rural Development project (SRD) aims at providing technical assistance and institutional capacity building to the Government of Egypt to support the implementation of a national pilot programme to develop a conditional incentive-based rural development strategy. This pilot programme falls into the key objectives of the Egyptian Government for poverty alleviation, sustainable development and economic growth. It is structured around four strategic pillars: 1) Agriculture competitiveness; 2) Environment and sound land management; 3) Rural quality of life and economic diversification; and 4) Building	**ORIGINAL ASSUMPTION BASED ON CSP**				
	Yes	**Yes**	**Yes**	**No**	**Yes**
	REVISED BASED ON FURTHER DOCUMENTATION				
	Yes	**Yes**	**Yes**	**No**	**Yes**
	JUSTIFICATION				

SECTOR AND PROJECT SCREENING					
KEY: **Yes** - indicates need to assess this aspect of the programme/project as it is likely to pose some risk **No** - indicates confidence that this aspect is resilient to CC effects **Min** - indicates more info is needed. **YES** or **NO** in capitals indicates overall assessment under expert judgement with current data		**PROJECT BENEFITS UNDER CLIMATE RISK** **Effects of climate impacts on project deliverables and medium-term outcomes and benefits**	**PROJECT EFFECTIVENESS UNDER CLIMATE RISK** **Effects of climate change impacts on project partners, inputs, necessary assets and intended beneficiaries**	**PROJECT CAUSING ADVERSE SUSTAINABILITY** **Potential harm produced by the project that could increase local vulnerabilities**	**PROJECT CAUSING POSITIVE SUSTAINABILITY** **Benefits for vulnerability reduction**
	OPERATING IN SECTOR VULNERABLE TO: • Climate Variability (CV) • Extreme Weather (EW) • Future Change (FC)	Are the anticipated impacts of climate change, variability or extreme weather likely to directly/indirectly affect the planned deliverables at the end of project implementation) and the delivery of continued benefits during the subsequent, five-year period?	Is realised climate risk likely to directly/indirectly worsen the ability of project partners and intended beneficiaries to participate?	Is there potential for the project to increase local vulnerabilities of final beneficiaries or ecosystems (mal-adaptation) to climate change related risks?	What potential is there for project outcomes to improve due to climate change
local institutional capacity. The pilot programme will target small and marginal farmers in old lands and aims at introducing good agricultural practices, water saving techniques, environmentally friendly farming, local economic growth, development of a strong agri-business sector, job creation through economic diversification of rural economy and the reduction of the gap in living standards between rural and urban communities					

SECTOR AND PROJECT SCREENING					
KEY: **Yes** - indicates need to assess this aspect of the programme/project as it is likely to pose some risk **No** - indicates confidence that this aspect is resilient to CC effects **Min** - indicates more info is needed. **YES** or **NO** in capitals indicates overall assessment under expert judgement with current data		**PROJECT BENEFITS UNDER CLIMATE RISK** **Effects of climate impacts on project deliverables and medium-term outcomes and benefits**	**PROJECT EFFECTIVENESS UNDER CLIMATE RISK** **Effects of climate change impacts on project partners, inputs, necessary assets and intended beneficiaries**	**PROJECT CAUSING ADVERSE SUSTAINABILITY** **Potential harm produced by the project that could increase local vulnerabilities**	**PROJECT CAUSING POSITIVE SUSTAINABILITY** **Benefits for vulnerability reduction**
	OPERATING IN SECTOR VULNERABLE TO: • Climate Variability (CV) • Extreme Weather (EW) • Future Change (FC)	Are the anticipated impacts of climate change, variability or extreme weather likely to directly/indirectly affect the planned deliverables at the end of project implementation) and the delivery of continued benefits during the subsequent, five-year period?	Is realised climate risk likely to directly/indirectly worsen the ability of project partners and intended beneficiaries to participate?	Is there potential for the project to increase local vulnerabilities of final beneficiaries or ecosystems (mal-adaptation) to climate change related risks?	What potential is there for project outcomes to improve due to climate change
Support for political development, decentralisation and promotion of good governance					
Decentralisation enhances democratic practices and improves the management and standards of public services. Adoption of the new decentralisation law is among the first priorities in the Government's political reform programme. In Egypt quality of governance can be improved by increasing public accountability, information (transparency) and appeal procedures (contestability) and set up adequate mechanisms to fight corruption. Three components: • Electoral process • Decentralisation reform • Good governance	**ORIGINAL ASSUMPTION BASED ON CSP**				
	No	**No**	**No**	**No**	**Yes**
	REVISED BASED ON FURTHER DOCUMENTATION				
	Yes	**Yes**	**Yes**	**No**	**Yes**
	JUSTIFICATION				

SECTOR AND PROJECT SCREENING					
KEY: **Yes** - indicates need to assess this aspect of the programme/project as it is likely to pose some risk **No** - indicates confidence that this aspect is resilient to CC effects **Min** - indicates more info is needed. **YES** or **NO** in capitals indicates overall assessment under expert judgement with current data		**PROJECT BENEFITS UNDER CLIMATE RISK** **Effects of climate impacts on project deliverables and medium-term outcomes and benefits**	**PROJECT EFFECTIVENESS UNDER CLIMATE RISK** **Effects of climate change impacts on project partners, inputs, necessary assets and intended beneficiaries**	**PROJECT CAUSING ADVERSE SUSTAINABILITY** **Potential harm produced by the project that could increase local vulnerabilities**	**PROJECT CAUSING POSITIVE SUSTAINABILITY** **Benefits for vulnerability reduction**
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IWSP (Improved Water and Wastewater Services Programme) formerly: Support for investment in transport, energy and environment sectors					
IWSP is to provide support to improve the performance of the Affiliate Companies (ACs) - of the Egyptian Holding Company for Drinking Water and Wastewater (HCDWW). Its main activities are 1. An investment programme for improving the quantity, quality and efficiency of the water supply and particularly wastewater services in the four governorates Sharkia, Gharbia, Damietta and Beheira in the Nile Delta region. About 4 million inhabitants will benefit from this action through the implementation of civil works, provision of electro-mechanical equipment, pipelines, goods and associated services. 2. Capacity building/institutional strengthening of HCWW	**ORIGINAL ASSUMPTION BASED ON CSP**				
	Yes	**No**	**No**	**No**	**Min**
	REVISED BASED ON FURTHER DOCUMENTATION ***(note that programme is much more defined now)***				
	Yes	**Yes**	**No**	**No**	**Yes**
	JUSTIFICATION				
		The Nile Delta region in Egypt (the target of this programme) will be highly affected by CC (sea level rise, higher temperatures, less water): thus, this can easily have effect on the results of this programme			**T**his project will improve water and wastewater institutions and agencies which are important components of building adaptation capacity

SECTOR AND PROJECT SCREENING					
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SAAP III-Support to the Implementation of the Action Plan Programme and the Association Agreement					
In the context of the ENP Action Plan, the SAAP III Programme contributes to national efforts towards strengthening the regulatory, monitoring, and operational functions of the public administration, particularly through the utilisation of Institutional Twinning. Technical assistance is provided as such to strengthen institutional capacities of the public administration, or be used as preparatory/complementary phase for twinning projects. The design of new twinning projects will be very much in line with the relevant ongoing and future EC Sector Policy Support in various areas (Transport, Water, Education, renewable energy, energy efficiency etc.).	**ORIGINAL ASSUMPTION BASED ON CSP**				
	No	**No**	**No**	**No**	**Yes**
	REVISED BASED ON FURTHER DOCUMENTATION ***(note that programme is much more defined now)***				
	No	**Yes?**	**No**	**No**	**Yes**
	JUSTIFICATION				
		CC impacts on various sectors which are targets of this programme are expected **No or Min** ...but will CC affect the project deliverables? CC can affect the sector but perhaps not the deliverables *per se*			

SECTOR AND PROJECT SCREENING					
KEY: **Yes** - indicates need to assess this aspect of the programme/project as it is likely to pose some risk **No** - indicates confidence that this aspect is resilient to CC effects **Min** - indicates more info is needed. **YES** or **NO** in capitals indicates overall assessment under expert judgement with current data		**PROJECT BENEFITS UNDER CLIMATE RISK** **Effects of climate impacts on project deliverables and medium-term outcomes and benefits**	**PROJECT EFFECTIVENESS UNDER CLIMATE RISK** **Effects of climate change impacts on project partners, inputs, necessary assets and intended beneficiaries**	**PROJECT CAUSING ADVERSE SUSTAINABILITY** **Potential harm produced by the project that could increase local vulnerabilities**	**PROJECT CAUSING POSITIVE SUSTAINABILITY** **Benefits for vulnerability reduction**
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Promotion and protection of human rights					
Promote/protect human rights, assistance targeted at strengthening culture of respect for human rights, fundamental freedoms, capacity and effectiveness of all competent institutions, including security apparatus /police, and supporting formulation of national human rights strategy by authorities. Cooperation to support protection of women's and children's rights, to enhance freedom of expression and independence of media. Specific attention to be paid to enforcement of protocols and international conventions related to human rights to which Egypt is party (on political and civil rights, economic, social and cultural rights, women's rights, children's rights, torture, racial discrimination, the death penalty and status of refugees).	**ORIGINAL ASSUMPTION BASED ON CSP**				
	No	**No**	**No**	**No**	**No**
	REVISED BASED ON FURTHER DOCUMENTATION ***(note that programme is much more defined now)***				
	No	**No**	**No**	**No**	**No**
	JUSTIFICATION				

SECTOR AND PROJECT SCREENING					
KEY: **Yes** - indicates need to assess this aspect of the programme/project as it is likely to pose some risk **No** - indicates confidence that this aspect is resilient to CC effects **Min** - indicates more info is needed. **YES** or **NO** in capitals indicates overall assessment under expert judgement with current data		**PROJECT BENEFITS UNDER CLIMATE RISK** **Effects of climate impacts on project deliverables and medium-term outcomes and benefits**	**PROJECT EFFECTIVENESS UNDER CLIMATE RISK** **Effects of climate change impacts on project partners, inputs, necessary assets and intended beneficiaries**	**PROJECT CAUSING ADVERSE SUSTAINABILITY** **Potential harm produced by the project that could increase local vulnerabilities**	**PROJECT CAUSING POSITIVE SUSTAINABILITY** **Benefits for vulnerability reduction**
	OPERATING IN SECTOR VULNERABLE TO: • Climate Variability (CV) • Extreme Weather (EW) • Future Change (FC)	Are the anticipated impacts of climate change, variability or extreme weather likely to directly/indirectly affect the planned deliverables at the end of project implementation) and the delivery of continued benefits during the subsequent, five-year period?	Is realised climate risk likely to directly/indirectly worsen the ability of project partners and intended beneficiaries to participate?	Is there potential for the project to increase local vulnerabilities of final beneficiaries or ecosystems (mal-adaptation) to climate change related risks?	What potential is there for project outcomes to improve due to climate change

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HSPSP II-Health Sector Policy Support Programme II					
Support to health sector based on principles of human equity	**ORIGINAL ASSUMPTION BASED ON CSP**				
	Yes	**Yes**	**No**	**No**	**Yes**

SECTOR AND PROJECT SCREENING					
KEY: **Yes** - indicates need to assess this aspect of the programme/project as it is likely to pose some risk **No** - indicates confidence that this aspect is resilient to CC effects **Min** - indicates more info is needed. **YES** or **NO** in capitals indicates overall assessment under expert judgement with current data		**PROJECT BENEFITS UNDER CLIMATE RISK** **Effects of climate impacts on project deliverables and medium-term outcomes and benefits**	**PROJECT EFFECTIVENESS UNDER CLIMATE RISK** **Effects of climate change impacts on project partners, inputs, necessary assets and intended beneficiaries**	**PROJECT CAUSING ADVERSE SUSTAINABILITY** **Potential harm produced by the project that could increase local vulnerabilities**	**PROJECT CAUSING POSITIVE SUSTAINABILITY** **Benefits for vulnerability reduction**
	OPERATING IN SECTOR VULNERABLE TO: • Climate Variability (CV) • Extreme Weather (EW) • Future Change (FC)	Are the anticipated impacts of climate change, variability or extreme weather likely to directly/indirectly affect the planned deliverables at the end of project implementation) and the delivery of continued benefits during the subsequent, five-year period?	Is realised climate risk likely to directly/indirectly worsen the ability of project partners and intended beneficiaries to participate?	Is there potential for the project to increase local vulnerabilities of final beneficiaries or ecosystems (mal-adaptation) to climate change related risks?	What potential is there for project outcomes to improve due to climate change
and social stability. EU support could include fight against communicable/non-communicable diseases, through facilitating implementation of international treaties in public health. Support given to health sector reform through programme of €110 M (ended in 2007) implemented in five pilot Governorates. 125 Family Health Units in primarily rural areas were constructed and rehabilitated, equipped with medical/non-medical equipment. Medical and paramedical staff given specialised training and Family Health Fund (FHF) established - provide high quality primary health services. Further €120 M ~ support health sector in 09.	**REVISED BASED ON FURTHER DOCUMENTATION *(note that programme is much more defined now)***				
	Yes	**Yes**	**Yes**	**No**	**Yes**
	JUSTIFICATION				
			This programme has sufficient beneficiaries located in exposed rural areas (health clinics)		**But minimal**

SECTOR AND PROJECT SCREENING					
KEY: **Yes** - indicates need to assess this aspect of the programme/project as it is likely to pose some risk **No** - indicates confidence that this aspect is resilient to CC effects **Min** - indicates more info is needed. **YES** or **NO** in capitals indicates overall assessment under expert judgement with current data		**PROJECT BENEFITS UNDER CLIMATE RISK** **Effects of climate impacts on project deliverables and medium-term outcomes and benefits**	**PROJECT EFFECTIVENESS UNDER CLIMATE RISK** **Effects of climate change impacts on project partners, inputs, necessary assets and intended beneficiaries**	**PROJECT CAUSING ADVERSE SUSTAINABILITY** **Potential harm produced by the project that could increase local vulnerabilities**	**PROJECT CAUSING POSITIVE SUSTAINABILITY** **Benefits for vulnerability reduction**
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Education Sector Policy Support Programme (ESPSP)					
This programme aims at strengthening access, quality and gender equality in the education sector, and builds on important reforms already introduced under the €100 million Education Enhancement Programme funded by the Commission which ran until 2006.	**ORIGINAL ASSUMPTION BASED ON CSP**				
	No	**No**	**No**	**No**	**Yes**
	REVISED BASED ON FURTHER DOCUMENTATION ***(note that programme is much more defined now)***				
	No	**Yes?**	**Yes?**		
	JUSTIFICATION				
		Extreme events (such as droughts) may decrease school attendance. (depends on specific location) **On a longer term, sea level rise may endanger school infrastructures in the Nile Delta** (outside programme lifetime)	**If extreme events (droughts, water deprivation) occur during the programme's implementation** (depends on specific location)		

SECTOR AND PROJECT SCREENING					
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	OPERATING IN SECTOR VULNERABLE TO: • Climate Variability (CV) • Extreme Weather (EW) • Future Change (FC)	Are the anticipated impacts of climate change, variability or extreme weather likely to directly/indirectly affect the planned deliverables at the end of project implementation) and the delivery of continued benefits during the subsequent, five-year period?	Is realised climate risk likely to directly/indirectly worsen the ability of project partners and intended beneficiaries to participate?	Is there potential for the project to increase local vulnerabilities of final beneficiaries or ecosystems (mal-adaptation) to climate change related risks?	What potential is there for project outcomes to improve due to climate change

SECTOR AND PROJECT SCREENING					
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	OPERATING IN SECTOR VULNERABLE TO: • Climate Variability (CV) • Extreme Weather (EW) • Future Change (FC)	Are the anticipated impacts of climate change, variability or extreme weather likely to directly/indirectly affect the planned deliverables at the end of project implementation) and the delivery of continued benefits during the subsequent, five-year period?	Is realised climate risk likely to directly/indirectly worsen the ability of project partners and intended beneficiaries to participate?	Is there potential for the project to increase local vulnerabilities of final beneficiaries or ecosystems (mal-adaptation) to climate change related risks?	What potential is there for project outcomes to improve due to climate change

200 Mega Watt Wind Farm, Gulf of El Zayt (new addition)					
The programme consists in setting-up a 200 MW Wind	**ORIGINAL ASSUMPTION BASED ON CSP**				
	No	**No**	**No**	**No**	**Yes**

SECTOR AND PROJECT SCREENING					
KEY: **Yes** - indicates need to assess this aspect of the programme/project as it is likely to pose some risk **No** - indicates confidence that this aspect is resilient to CC effects **Min** - indicates more info is needed. **YES** or **NO** in capitals indicates overall assessment under expert judgement with current data		**PROJECT BENEFITS UNDER CLIMATE RISK** **Effects of climate impacts on project deliverables and medium-term outcomes and benefits**	**PROJECT EFFECTIVENESS UNDER CLIMATE RISK** **Effects of climate change impacts on project partners, inputs, necessary assets and intended beneficiaries**	**PROJECT CAUSING ADVERSE SUSTAINABILITY** **Potential harm produced by the project that could increase local vulnerabilities**	**PROJECT CAUSING POSITIVE SUSTAINABILITY** **Benefits for vulnerability reduction**
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Farm in the Gulf of El-Zayt. The project which involves studies, design, construction, commissioning and operation of a large-size (up to 200 MW) onshore wind farm to be located on the west bank of the Gulf of Suez.	**REVISED BASED ON FURTHER DOCUMENTATION** ***(note that programme is much more defined now)***				
	Yes	~~**Yes**~~ **No**	**No**	**No**	**Yes**
	JUSTIFICATION				
		The effects of climate change are minimal like faster depreciation of materials due to heat, *etc* Overall, pretty irrelevant effect			CC is boosting the renewable energies and energy efficiency market and this project is helping improve the Egyptian energy sector. This sector is seen more and more as relevant by Egyptian authorities for mitigation

T. 2 J Project Level Screening – India: revisions

SECTOR AND PROJECT SCREENING					
KEY: **Yes** - indicates need to assess this aspect of the programme/project as it is likely to pose some risk **No** - indicates confidence that this aspect is resilient to CC effects **Min** - indicates more info is needed. **YES** or **NO** in capitals indicates overall assessment under expert judgement with current data		**PROJECT BENEFITS UNDER CLIMATE RISK** **Effects of climate impacts on project deliverables and medium-term outcomes and benefits**	**PROJECT EFFECTIVENESS UNDER CLIMATE RISK** **Effects of climate change impacts on project partners, inputs, necessary assets and intended beneficiaries**	**PROJECT CAUSING ADVERSE SUSTAINABILITY** **Potential harm produced by the project that could increase local vulnerabilities**	**PROJECT CAUSING POSITIVE SUSTAINABILITY** **Benefits for vulnerability reduction**
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Institutional capacity Building for the Civil Aviation Sector in India					
EU and India have agreed to work towards the conclusion on a Maritime Agreement as well as an Agreement on Civil Aviation which will be the basis for further going dialogues including closer co-operation in air transport technology, regulation and infrastructure. To this end both parties agreed in the Action Plan to explore the possibility of continuing and expanding the scope of the existing Civil Aviation Project.	**ORIGINAL ASSUMPTION BASED ON CSP**				
	Yes	**Yes**	**Min**	**No**	**No**
	REVISED BASED ON FURTHER DOCUMENTATION				
	NO	**NO**	**NO**	**NO**	**~~NO~~ YES**
	JUSTIFICATION				
					Project includes an environment component to promote regulations and practices targeting reduction of GHG by the civil aviation sector

SECTOR AND PROJECT SCREENING					
KEY: **Yes** - indicates need to assess this aspect of the programme/project as it is likely to pose some risk **No** - indicates confidence that this aspect is resilient to CC effects **Min** - indicates more info is needed. **YES** or **NO** in capitals indicates overall assessment under expert judgement with current data		**PROJECT BENEFITS UNDER CLIMATE RISK** **Effects of climate impacts on project deliverables and medium-term outcomes and benefits**	**PROJECT EFFECTIVENESS UNDER CLIMATE RISK** **Effects of climate change impacts on project partners, inputs, necessary assets and intended beneficiaries**	**PROJECT CAUSING ADVERSE SUSTAINABILITY** **Potential harm produced by the project that could increase local vulnerabilities**	**PROJECT CAUSING POSITIVE SUSTAINABILITY** **Benefits for vulnerability reduction**
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Erasmus Mundus External Cooperation Window - India Strand (Contracts 2008 and 2009)					
The Erasmus Mundus External Cooperation Window aims to continue to facilitate linkages between the EU and India in higher education and therefore to continue enlarging the spectrum of Indian students who have completed postgraduate studies in Europe. This will in turn contribute to the ongoing improvement of political, economic and cultural linkages between the EU and India and the strengthening of the EU-India Strategic Partnership.	**ORIGINAL ASSUMPTION BASED ON CSP**				
	Yes	**Yes**	**Min**	**No**	**No**
	REVISED BASED ON FURTHER DOCUMENTATION				
	NO	**NO**	**NO**	**NO**	**~~NO~~ YES**
	JUSTIFICATION				
					In general, education benefits adaptation capacity

SECTOR AND PROJECT SCREENING					
KEY: **Yes** - indicates need to assess this aspect of the programme/project as it is likely to pose some risk **No** - indicates confidence that this aspect is resilient to CC effects **Min** - indicates more info is needed. **YES** or **NO** in capitals indicates overall assessment under expert judgement with current data		**PROJECT BENEFITS UNDER CLIMATE RISK** **Effects of climate impacts on project deliverables and medium-term outcomes and benefits**	**PROJECT EFFECTIVENESS UNDER CLIMATE RISK** **Effects of climate change impacts on project partners, inputs, necessary assets and intended beneficiaries**	**PROJECT CAUSING ADVERSE SUSTAINABILITY** **Potential harm produced by the project that could increase local vulnerabilities**	**PROJECT CAUSING POSITIVE SUSTAINABILITY** **Benefits for vulnerability reduction**
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Climate Change Awareness Programme					
The initiative forms an integral part of the Action Plan and links the actions undertaken in the Environment and Energy sectors in a coherent manner. The initiative includes, among other steps, enhanced efforts at introducing clean technologies, a strengthening of the CDM, and enhanced research and development co-operation on technologies and measures to adapt to climate change.	**ORIGINAL ASSUMPTION BASED ON CSP**				
	Yes	**Yes**	**Min**	**No**	**No**
	REVISED BASED ON FURTHER DOCUMENTATION				
	NO	**NO**	**~~NO~~ YES**	**NO**	**NO**
	JUSTIFICATION				
	NO	Yes ~ Programme is expected to work on climate sensitive areas or sectors and to support national policies on CC which might vary according to climate variability **No ~ CC unlikely to affect programme**	Project stakeholders, target group, partners, objectives and activities *etc* are dependent on climate variability	Project is likely to significantly reduce vulnerabilities if results are delivered successfully	Project is likely to significantly reduce vulnerabilities once results are delivered successfully

T. 3 Some Case Study Material

Technical Appendices T 2 could be used for case study material

Papua New Guinea Rural Water Supply and Sanitation: Project Locations and Schemes

Scheme Name Location and Type

	SCHEME		LLG	District	Province	Type	Location
01 Adventist Development and Relief Agency							
01	AIYAYOK		BUANG	BULOLO	Morobe	Gravity fed	Inland Coastal
02	BAINDOANG		NABAK	NAWAEB	Morobe	Gravity fed	Inland Coastal
03	BUHALU		LABUTA	NAWAEB	Morobe	Gravity fed	Inland Coastal
04	DAWONG		Bu	BULOLO	Morobe	Gravity fed	Inland Coastal
05	DIMINING			NAWAEB	Morobe	Gravity fed	Inland Coastal
06	MONSOLOP		Nabak	NAWAEB	Morobe	Gravity fed	Inland Coastal
07	HONIKI				Morobe	Gravity fed	Inland Coastal
08	KWEWILING		Nabak	NAWAEB	Morobe	Gravity fed	Inland Coastal
09	NANG		Waeng	NAWAEB	Morobe	Gravity fed	Inland Coastal
10	SAKALANG		Nabak	Nawaeb	Morobe	Gravity fed	Inland Coastal
11	DURUKUPO		Umi atzera		Morobe	Gravity fed	Inland Coastal
12	BAKON			T/Siassi		Gravity fed	Coastal
13	NANDA			T/Siassi	Morobe	Gravity fed	Coastal
14	KEBRUM			T/Siassi	Morobe	Gravity fed	Coastal
15	TAMU		Yabem Mape	Finschafen	Morobe	Gravity fed	Coastal
16	HAPOHONDONG		Yabem Mape	Finschafen	Morobe	Gravity fed	Coastal
17	KABI			T/Siassi	Morobe	Gravity fed	Coastal
18	SAGAYO		Buang	Bulolo	Morobe	Gravity fed	Inland Coastal
19	SILIMANA				Morobe	Gravity fed	Inland Coastal
20	EEC		Labuta	Nawaeb	Morobe	Gravity fed	Inland Coastal
21	KOPIAK			Bulolo	Morobe	Gravity fed	Inland Coastal
22	SAKAR				Morobe	Gravity fed	Inland Coastal
23	GELMAN		Waeng		Morobe	Gravity fed	Inland Coastal
23	LOMALONG				Morobe	Gravity fed	Inland Coastal
25	SARABORAN				Morobe	Gravity fed	Inland Coastal
26	BOAC		Labuta	Nawaeb	Morobe	Gravity fed	Inland Coastal
27	KWALEBO		Erap	Nawaeb	Morobe	Gravity fed	Inland Coastal

	SCHEME		LLG	District	Province	Type	Location
28	UMBANGAN			Nawaeb	Morobe	Gravity fed	Inland Coastal
29	FASIU			Finschafen	Morobe	Gravity fed	Inland Coastal
30	ORIGENANG			Finschafen	Morobe	Gravity fed	Inland Coastal
31	MINDIK			Finschafen	Morobe	Gravity fed	Inland Coastal
32	QUIWI (MEN)			Menyamya	Morobe	Gravity fed	Inland Coastal
33	UMBAMON			Kabwum	Morobe	Gravity fed	Inland Coastal
34	BOROKEI			Kabwum	Morobe	Gravity fed	Inland Coastal
35	KOMUTU			Kabwum	Morobe	Gravity fed	Inland Coastal
36	HAMELENGAN			Kabwum	Morobe	Gravity fed	Inland Coastal
02 OXFAM							
01	TIGIBI			Tari	SHP	Rain Water	Highlands
02	WARALU			Tari	SHP	Rain Water	Highlands
03	MARIA			Tari	SHP	Rain Water	Highlands
04	MAGARA			Tari	SHP	Rain Water	Highlands
05	KUP			Minj	WHP	Rain Water	Highlands
03 WATERAID							
01	KAMBAGORA			Angoram	East Sepik	Gravity fed	Inland Coastal
04 LIVING WATERS							
01	TAGANA			Rigo	Central		Coastal
05 UNITED CHURCH							
01	LELEHUDI				Milne Bay	Gravity fed	Coastal
02	LEALEA			Rigo	Central	Rain Water	Coastal
03	GUNUGAO			Rigo	Central	Rain Water	Coastal
06 BAPTIST UNION							
01	KAINDAN	12	Kompiam	Kompiam Ambum	Enga	Gravity fed	Highlands
02	WAIPAKAM	11	Kompiam	Kompiam Ambum	Enga	Gravity fed	Highlands
07 TENKILE CONSERVATION ALLIANCE							
01	Yongite			Lumi	Sandaun	Rain Water	Inland Low Hills
02	Wuguble			Lumi	Sandaun	Rain Water	Inland Low Hills

	SCHEME		LLG	District	Province	Type	Location
03	Waieli			Lumi	Sandaun	Rain Water	Inland Low Hills
04	Maiwetem			Lumi	Sandaun	Rain Water	Inland Low Hills
05	Soulete			Lumi	Sandaun	Rain Water	Inland Low Hills
06	Waunulu			Lumi	Sandaun	Rain Water	Inland Low Hills
07	Rawete			Lumi	Sandaun	Rain Water	Inland Low Hills
08	Wilbeite			Lumi	Sandaun	Rain Water	Inland Low Hills
09	Miwaute			Lumi	Sandaun	Rain Water	Inland Low Hills
10	Wabute			Lumi	Sandaun	Rain Water	Inland Low Hills
11	Sabute			Lumi	Sandaun	Rain Water	Inland Low Hills
12	Tolgeti			Lumi	Sandaun	Rain Water	Inland Low Hills
13	Wigote			Lumi	Sandaun	Rain Water	Inland Low Hills
14	Hapseim			Lumi	Sandaun	Rain Water	Inland Low Hills
15	Yomoun			Lumi	Sandaun	Rain Water	Inland Low Hills
16	Lilak			Lumi	Sandaun	Rain Water	Inland Low Hills
17	Mupun			Lumi	Sandaun	Rain Water	Inland Low Hills
18	Sikel			Lumi	Sandaun	Rain Water	Inland Low Hills
08 SALVATION ARMY SOUTH							
01	KORE			Rigo	Central	Rain Water	Inland Coastal
02	Saroakeina			Rigo	Central	Rain Water	Inland Coastal
03	Lebogoro			Rigo	Central	Rain Water	Inland Coastal
04	Nuiruka			Rigo	Central	Rain Water	Inland Coastal
09 Diocese of Bereina							
01	Aloaveiva	2	Mekeo Kuni	Kairiku	Central	Rain Water	Inland Coastal
02	Veifa,a	2	Mekeo Kuni	Kairiku	Central	Rain Water	Inland Coastal
03	Iesubaibua	10	Mekeo Kuni	Kairiku	Central	Rain Water	Inland Coastal
04	Inauaia	7	Mekeo Kuni	Kairiku	Central	Rain Water	Inland Coastal
10 Lutheran Development Services							
01	Gitukea			Tewai Siassi	Morobe	Gravity fed	Inland Coastal
11 AYAHO COMMUNITY DEVELOPMENT FOUNDATION							
01	URANTEFAMO	9	Kamano	Kainantu	EHP	Gravity fed	Highlands

	SCHEME		LLG	District	Province	Type	Location
12 GOROKA COMMUNITY DEVELOPMENT AGENCY							
01	KWONGI #2	22	Upper Asaro	Daulo	EHP	Gravity fed	Highlands
13 SIMBU CORE GROUP							
01	Waigar		Upper Kerowaghi	Kerowaghi	Simbu	Gravity fed	Highlands
14 IALIBU CORE GROUP							
01	Pakule		Ialibu Basin	Ibongu	SHP	Gravity fed	Highlands
15 CENTRAL CORE GROUP							
01	Babagaribu		Rigo Coast	Rigo	Central	Rain Water	Inland Coastal
16 GULF CHRISTIAN SERVICES							
01	Kinipo		Baimuru	Kikori	Gulf	Rain Water	Coastal
02	Kapai		Baimuru	Kikori	Gulf	Rain Water	Coastal
17 WORLD WILDLIFE FUND (sic)							
01	KAPAL*		Oriomo Bituri	South fly	Western	Rain Water	Inland Coastal
02	WIM		Oriomo Bituri	South fly	Western	Rain Water	Inland Coastal
03	WONIE		Oriomo Bituri	South fly	Western	Rain Water	Inland Coastal
18 COMMUNITY DEVELOPMENT INITIATIVE							
01	Daga 1	3		Nipa/ Kutubu	Southern Highlands	Gravity fed	Highlands
02	Daga 2			Nipa/ Kutubu	Southern Highlands	Gravity fed	Highlands
19 FOUNDATION FOR PEOPLE AND COMMUNITY DEVELOPMENT							
01	Aronis		Sumgilbar	Sumkar	Madang	Ram Pump	Inland Coastal
20 THE NATURE CONSERVANCY							
01	URUMARAV	8	Almami	Bogia	Madang	Rain Water	Inland Coastal
02	GURUBE	8	Almami	Bogia	Madang	Rain Water	Inland Coastal
03	TURUTAPA	7	Almami	Bogia	Madang	Rain Water	Inland Coastal
04	AVIPA	8	Almami	Bogia	Madang	Rain Water	Inland Coastal

	SCHEME		LLG	District	Province	Type	Location
21 MILNE BAY CHURCH DEVELOPMENT FUND ASSOCIATION							
01	WIOLE	3	Huhu LLG	Alotau	Milnebay	Rain Water	Coastal
22 World Vision							
01	Suaru					Gravity fed	Coastal
02	Ulatapun					Gravity fed	Coastal
03	Garum					Gravity fed	Inland Coastal
04	Murkanam					Gravity fed	Inland Coastal
05	Amiten					Gravity fed	Inland Coastal
23 LIVE AND LEARN ENVIRONMENTAL EDUCATION							
01	BULUWARA	8	Talasea	Talasea		Rain Water	Coastal
02	KOMOWAWO	8		Talasea		Rain Water	Coastal
03	LIAPO	8		Talasea		Rain Water	Coastal
04	VALUPAI	8		Talasea		Rain Water	Coastal
25 Manus Core Group							
01	Andra Island	1	PNKA	Manus	Manus	Rain Water	Coastal
26 Diocese of Kundiawa							
01	Goro			Gembogl		Gravity fed	Highlands
02	Kurumugl			Gembogl		Gravity fed	Highlands
27 Salvation Army North							
01	BAROLA		Kamano 1	Kainantu	EHP	Gravity fed	Highlands
02	TOMBIL	1 & 2	Minj	Anglimp South Wahgi	WHP	Gravity fed	Highlands
28 Research and Conservation Foundation							
01	MENGINO	2	unavi	Lufa	EHP	Gravity fed	Highlands
02	HAIA		karamui	Karamui	Simbu		Highlands
03	ABIGARAMA	2	Unavi	Lufa	EHP		Highlands

	SCHEME		LLG	District	Province	Type	Location
04	Maimafu	1	unavi	Lufa	EHP		Highlands
29 South Sea Evangelical Church							
01	Ilahup			Maprik	East Sepik	Rain Water	Inland Coastal
02	YAKRUMBOK		Ambunti	Drekikir	East Sepik	Rain Water	Inland Coastal
30 Save the Children in PNG							
01	Bonam					Rain Water	Inland Coastal
02	Mamber					Rain Water	Inland Coastal
03	Numamaka					Rain Water	Inland Coastal
04	Tatemba					Rain Water	Inland Coastal
05	Bukibalikim					Rain Water	Inland Coastal
06	Mangan					Rain Water	Inland Coastal
07	Sarikim						Inland Coastal
31 Christian Brethren Churches							
01	Wanambi	3	NUku Central	Nuku	East Sepik	Rain Water	Inland –Low Hills
02	Walkasa	5	NUku Central	Nuku	East Sepik	Rain Water	Inland –Low Hills
03	Wulal	2	NUku Central	Nuku	East Sepik	Rain Water	Inland –Low Hills
04	Sepitala	19	NUku Central	Nuku	East Sepik	Rain Water	Inland –Low Hills
32 Care International							
01	Onenika	26	Obura wonenara	Obura	EHP	Gravity fed	Highlands
	Omaura 1, 2,		Obura Wonenara	Obura	EHP	Gravity fed	Highlands

T. 4 Climate Change Risk Information Sources

INFORMATION SOURCES, ADAPTATION-FOR-DEVELOPMENT NETWORKS, DECISION-SUPPORT TOOLS AND LEARNING PLATFORMS

1. DATA PROVIDERS AND TOOLS THAT GENERATE AND VISUALISE BIO-CLIMATIC INFORMATION AND IMPACTS DATA

Name	Primary Focus	Website & Summary description
Adaptation Learning Mechanism - ALM	**Info portal and learning platform with country information for project screening**	**http://www.adaptationlearning.net/profiles http://www.adaptationlearning.net/resources/tools.php http://www.undp.org/climatechange/adapt/downloads/CC_RiskScreening_DRAFT.pdf**
Implemented by and for UNDP, WB, UNEP and funded $1 million by GEF, SDC, IEPF. **ALM** is an open knowledge platform, holding adaptation experiences, good practices, database of country adaptation profiles, tools & guidance. UNDP country adaptation profiles were designed to assist UNDP offices and staff to develop adaptation proposals integrated into development programming. Publicly available to support all stakeholders. The advantages include wide geographical coverage and links to a number of tools. This Web site shares four main types of resources that support stakeholders at different stages of adaptation: country profiles, case studies, lessons learned, and guidance and tools. Country adaptation profiles are the first stop for developing a national adaptation initiative. Users can access essential information and submit additional materials for more than 140 countries. Case studies capture ongoing adaptation initiatives to share what is being done, where, and how. Lessons learned reflect on adaptation experience, addressing success factors and risk management entry points for adaptation, offer solutions for overcoming barriers when developing and implementing adaptation initiatives, as well as reflect on challenges and failures. Guidance and tools come from the wide range of existing resources developed by various agencies and will share resources to fill identified gaps. Materials address topics: capacity building, training, and monitoring and evaluation. Links provides access to complementary external adaptation resources, ranging from expert networks to project Web sites. Climate data, observations as well as projections is out of date, as is the literature used for assessed impacts. Uses this Columbia University Risk hotspots report used by ALM 2005 - http://sedac.ciesin.columbia.edu/hazards/hotspots/synthesisreport.pdf		
Country profiles - Oxford University	**Country climate data profiles**	**http://country-profiles.geog.ox.ac.uk**
Country-level climate data summaries funded by UNDP NSCP and DFID to address information gaps using existing climate data. Made up of studies of climate observations and the multi-model projections through the WCRP CMIP3. Consistent approach applied for 52 developing countries. Composes an 'off the shelf' analysis of climate data. Underlying data is available for further research. For 52 countries, reports contain maps and diagrams of observed and projected climates, as country average time series. Includes maps depicting changes on a 2.5° grid and summary tables of the data. Narrative summarises the data in the figures in the context of the country's climate. Files are manageable in text format which can easily be downloaded, read and manipulated. Each of the UNDP climate change county profile reports includes: • A set of maps and diagrams illustrating the observed and projected climates of that country as: (a) An area-average time series for each country showing observed climate combined with model-simulated recent and future climate under three SRES emissions scenarios. For the models, the series depict the recent climate and future changes as a 'plume' that encompasses the range of the 15 model ensemble under each scenario to demonstrate the degree of model uncertainty. (b) maps depicting projected changes for 10-year-average 'time-slices' for the 2030s, 2060s and 2090s under SRES emissions scenario A21 on a 2.5 x 2.5 ° grid demonstrating spatial variations in change across the country. Each grid box gives the ensemble median change, and the ensemble range. • A summary table of observed trends and projected change, averaged over the country • A narrative summarising the data above, and placing it in the context of the country's climate and known inadequacies in climate model performance affecting that region. • A dataset (available from the project website) containing the underlying observed and model data for that country, for use in further research projects.		
UNDP Tools - Global maps	**Sector impacts programming**	**http://www.undp.org/climatechange/adapt/program.html http://www.undp.org/climatechange/adapt/basics2.html**

Name	Primary Focus	Website & Summary description

UNDP set of resources to assist developing countries in planning adaptation through development. Includes: services for integrating climate resilience into development planning; identifying key climate change risks and opportunities to support adaptation in each UNDP practice area; Country portfolio analysis for climate change risks and adaptation opportunities; UNDP programming strategy using Hot spot analysis from vulnerability and hazard data and analysis of the economic costs of climate change impacts and adaptation strategies by sector. Programming guidelines set out Monitoring and Evaluation Framework for Adaptation describes goals and objectives for vulnerability reduction and building adaptive capacity in six thematic areas (water, agriculture, health, disaster risk reduction, natural resources, coastal zones). A suite of standard indicators are outlined, along with sample outcomes and indicators for each thematic area. Adaptation Learning Mechanism Country Adaptation Profiles Database, a UNDP-developed tool hosted by the Adaptation Learning Mechanism, provides information on climate change and the national initiatives for over 140 developing countries derived from climate model outputs assessed in the IPCC Fourth Assessment Report. On Methods for Adaptation, UNDP-GEF Adaptation Policy Frameworks comprises technical papers that outline a structured approach to formulating and implementing adaptation strategies, policies and measures. Included are: a User's Guidebook; Scoping and Designing an Adaptation Project; Engaging Stakeholders; Assessing Vulnerability; Assessing Current Climate Risks; Assessing Future Climate Risks; Assessing Current and Changing Socio-Economic Conditions; Assessing and Enhancing Adaptive Capacity; Formulating an Adaptation Strategy; and Continuing the Adaptation Process. Adaptation basics provides an overview of the relationship between climate change impacts and development, including impacts by sector as well as impacts affecting the achievement of the Millennium Development Goals

Centre for Research on the Epidemiology of Disasters (CRED) **Global database on natural and technological disasters** **http://www.emdat.be**

EM-DAT is a global database on natural and technological disasters that contains essential core data on the occurrence and effects of more than 17,000 disasters in the world from 1900 to present, compiled from various sources, including UN agencies, non-governmental organisations, insurance companies, research institutes and press agencies.. EM-DAT is maintained by the Centre for Research on the Epidemiology of Disasters (CRED), Belgium. Its main objectives are to assist humanitarian action at both national and international levels; to rationalize decision-making for disaster preparedness; and to provide an objective basis for vulnerability assessment and priority setting. It also aids the integration of health components into development and poverty alleviation programmes. Together with the complexity of collecting reliable information, there remains huge variability in definitions, methodologies, tools and sourcing. CRED has a long history of standardized data compilation, validation and analysis. EM-DAT provides and objective basis for vulnerability assessment and rational decision-making in disaster situations. It helps policymakers identify disaster types that are most common in a given country and have had significant historical impacts on specific human populations. In addition to providing information on the human impact of disasters, such as the number of people killed, injured or affected, EM-DAT provides disaster-related economic damage estimates and disaster-specific international aid contributions. For example, it decides whether floods in a given country are more significant in terms of its human impact than earthquakes or whether a country is more vulnerable than another.

Climate-Wizard **Web-based program to assess observed climate and for projecting future changes** **http://www.climatewizard.org**

Developed through collaboration between The Nature Conservancy, The University of Washington, and The University of Southern Mississippi, the **ClimateWizard** enables technical and non-technical audiences alike to easily and intuitively access leading climate change information and visualize the impacts anywhere on Earth. The first generation of this web-based program—which was recently launched at www.climatewizard.org—allows the user to choose a state or country and see both the climate change that has occurred to date and the climate change predicted to occur. ClimateWizard can be used to assess how climate has changed over time and to project what future changes are likely to occur in a given area.. With ClimateWizard you can: view historic temperature and rainfall maps for anywhere in the world, view state-of-the-art future predictions of temperature and rainfall around the world, view and download climate change maps in a few easy steps. ClimateWizard enables technical and non-technical audiences alike to access leading climate change information and visualize the impacts anywhere on Earth. ClimateWizard represents the first time ever the full range of climate history and impacts for a landscape have been brought together in a user-friendly format.

IPCC Data Distribution Centre - DDC **Scenario and historical climate, socio-economic and environmental data** **http://www.ipcc-data.org**

The **DDC** provides climate, socio-economic and environmental data, both from the past and also in scenarios projected into the future. The DDC is overseen by the IPCC Task Group on Data and Scenario Support for Impact and Climate Analysis (TGICA) and jointly managed by the British Atmospheric Data Centre (BADC) in the United Kingdom, the CSU World Data Center Climate (WDCC) in Germany, and the Center for International Earth Science Information Network (CIESIN) at Columbia University, New York, USA. The data are provided by co-operating modelling and analysis centres. Technical guidelines on the selection and use of different types of data and scenarios in research and assessment are provided. The DDC is designed primarily for climate change researchers, but materials contained on the site may also be of interest to educators, governmental and non-governmental organisations. The identification, selection, and application of baseline and scenario data are crucial steps in the assessments of future climate change. The IPCC DDC seeks to provide access to such a collection of data and scenarios and to offer guidance on their application. The DDC provides four main types of data and guidance. These are 1. Observed Climate Data Sets climate observations comprise 1961-1990 mean monthly data over global land areas for nine variables on a 0.5º latitude/longitude grid, together with decadal anomalies from this mean for the period 1901-1995. This data set is currently being updated to 2000 and interpolated to a finer resolution (10 x 10 arc minutes). 2. Global Climate Model Data available as monthly means or as climatologies. Data is held for climate model projections used as input to the Second, Third and Fourth IPCC Assessment Reports. 3. Socio-economic data and scenarios are required for describing socioeconomic development and adaptation capacity. The reference data include country and regional level indicators of socio-economic and resource variables. The scenario data supplied

Name	Primary Focus	Website & Summary description
extend to 2100 and are based on the assumptions underlying the new set of emissions scenarios developed for the IPCC Special Report on Emissions Scenarios, SRES, as well as the six IS92 emissions scenarios prepared by the IPCC in 1992. There is also detailed guidance on the use of DDC data to develop socio-economic and adaptation scenarios as well as links to related guidance material developed by other agencies. 4. Data and information for other environmental changes include data on global mean CO2 concentration, global and regional sea-level rise, regional ground-level ozone concentration, sulphate aerosol concentration and sulphur deposition. All of these scenarios were developed for the IPCC Third Assessment Report based on the SRES emissions scenarios.		
IPCC Reports	**Regional Impacts of CC**	From the Fourth Assessment: Chapter 9: Africa / Chapter 10: Asia / Chapter 13: Latin America / Chapter 14: North America / Chapter 16: Small Islands Pages 59 to 63 of the Technical Summary provide key findings for major developing country regions – see http://www.ipcc.ch/pdf/assessment-report/ar4/wg2/ar4-wg2-ts.pdf From the Third IPCC Assessment many findings remain relevant - http://www.grida.no/publications/other/ipcc_sr/?src=/climate/ipcc/regional/index.htm

Name	Primary Focus	Website & Summary description
Providing Regional Climates for Impacts Studies - PRECIS	**Climate scenario tool**	**http://precis.metoffice.com**
PRECIS is a regional climate modelling system that can be run over any area of the globe on a relatively inexpensive, fast personal computer to provide regional climate information for impact assessment studies. The tool uses global climate modelling to provide grid-scale averages of hydroclimatic variables as well as soil hydrology and thermodynamics, and some vegetation dynamic variables. The tool is applicable to multiple scales, sectors, and levels of screening but is limited to fine and point scale information. PRECIS is a widely used model to generate high-resolution regional climate information e.g. AIACC project AF07. It is designed specifically to enable non-Annex I countries undertake climate change, climate vulnerability, and adaptation research . PRECIS focuses on results to impacts, vulnerability, and adaptation research and how these would eventually feed into decision support systems for sustainable development in non-Annex I countries. Input Tool PRECIS is not a decision-making tool, but provides inputs that could be used for risk management and adaptation management processes. Regional model domains typically cover several countries. Flexible, easy to use, and computationally inexpensive regional climate model designed to provide detailed climate scenarios. Does not integrate impacts. Requires 1-week workshop training. Must purchase workshop module and training services. Mainly to build capacity in climate modelling & science with workshops on: (i) Background science including uncertainties (ii) Interpretation of PRECIS results by regional experts (iii) Construction of regional climate change scenarios (iv) Building capacity in countries/regions using PRECIS. PRECIS is supplied with: a handbook covering the background science, system description and the uses and limitations of PRECIS. PRECIS infrastructure set up to provide high resolution climate data for climate change research Focus to include/integrate climate science/modelling and applications to impacts, vulnerability and adaptation studies. User-network – capacity for WAMME, AMMA, CIFOR and activities in Eastern/Central African. Capacity for AFRMIP, WCRP/World Bank and research for GHA region.		
SERVIR	**Climate scenario tool & information portal**	**www.servir.net**
SERVIR is a Regional Visualization and Monitoring System that integrates earth observations (e.g. satellite imagery) and forecast models together with in situ data and knowledge for timely decision- making to benefit society. The first SERVIR regional operational facility – for the Latin America and the Caribbean region – was established in 2005 through the efforts of NASA, USAID, the Water Center for the Humid Tropics of Latin America and the Caribbean (CATHALAC), the Central American Commission for the Environment and Development (CCAD). Regional operational facility for East Africa opened in 2008 at the Regional Center for Mapping of Resources for Development (RCMRD) in Kenya. SERVIR addresses nine societal benefits of the Group on Earth Observations (GEO): disasters, ecosystems, biodiversity, weather, water, climate, health, agriculture, and energy. Office at NASA/Alabama articulates program with resource providers (host organizations, national governments, USAID and cooperation agencies). Regional operational facilities in Panama and Kenya, located in regional organizations, staffed by in-region experts are responsible for coordinating with other organizations related to climate change. CATHALAC has, to date, responded to over 20 natural disasters and 10 environmental threats, as well as developed a geospatial portal which provides improved access to regional data and metadata. The SERVIR-Africa facility is focusing on a geospatial portal to provide searchable earth observation data, and products to address flood forecasting and Rift Valley Fever prediction. Intended to strengthen the use of earth observations and models for decision making among government officials, scientists and researchers, NGOs, and academia. Has a Google technology based similar to the Climate change explorer, but concentrating on Latin America, recently extended to East Africa; nodes will be expanded to several spots in West Africa and Asia.		
World Bank Climate Change Portal + ADAPT tool	**World Bank - Information portal and project screening tool** **Country climate data profiles and Climate Data Projections**	**www.worldbank.org/climatechange** **http://sdwebx.worldbank.org/climateportal**
Comprehensive portal giving access to a suite of resources on climate change's relationships with development. Assessment and Design for Adaptation to climate change: a Prototype Tool is a computer-based tool to be used at the project design stage to screen for risks posed by climate change and variability. **ADAPT** is meant for use by development practitioners involved in project planning and design. These include Bank staff, bilateral agencies, client governments and the NGO community. The user is asked a series of questions to identify project activities and location. Database of future climate model projections for 7-10 key climate variables for proposed location. Activities are ranked as sensitive to varying degrees, depending on location, current and projected climate, and type of activity. Open source intelligent links pinpoint gaps and make it a useful levels recent features have been added to the GCM Japanese GCM offering 20 x 20 km resolution outputs by geographical reference for developing countries – for two time periods 2031-2050 and towards end of the century. Data about 14 major crops worldwide produced by IIASA, policy notes for Latin America countries; extensions to several other tools are planned to offer a broader capacity of operational analysis. Provides a link to a Searchable Knowledge Database hosting WB publications with access via document mining and a trained search system engine that reads the document to supply key info. The **ADAPT** screening tool, mimics an expert talking, and covers agriculture, biodiversity, forestry. Soon will include rural infrastructure, to provide levels of assessed risk for that site and can cover seasonal variations. Requires minimal computing skills, hardware and software, runs on MS Excel, guides user through screening process and provides online training, screens multiple sectors and regions, being tested in South Asia / Sub-Saharan Africa. The tool undertakes a sensitivity analysis for projects and flags activities that are sensitive to climate change. Tool utilises project location and activity information, screened through a project activity sensitivity matrix based on GCM data; does not utilise vulnerability data or adaptation at sectoral level.		

2. PROCESS ANALYSIS AND GUIDANCE TOOLS THAT PROVIDE FOR DATA ENTRY FOR SPECIFIC DECISION-MAKING

Name	Primary Focus	Website & Summary description
Climate-FIRST: Climate Framework Integrating Risk Screening Tool	**Desk-top risk screening tool**	None except ADB Climate Change Program Coordination Unit http://www.adb.org/Climate-Change/cc-adaptation.asp
Climate-FIRST is a user-friendly, desk-top (web/paper-based) risk screening tool for rapid assessment of potential risk of projects from a number of pre-determined climate change impacts and risk factors; classification of projects into high, moderate and low risk categories. The check-list alerts project officers and mission leaders to potential climate- induced impacts and risks, and allows for possible incorporation of risk reduction measures at the project preparation stage. Climate-FIRST relies on existing project data and knowledge. It pre-screens and assesses probable risk against a number of preconceived impact and risk tables, and assumptions (location of project in climate-sensitive geo-climatic zones, sector risks, capacity development, and known disaster hotspots). Rapid desk-top assessments of potential impacts and adaptation analysis. Helps mainstream risk reduction and adaptation during project preparation. Does not rely upon impact modelling data. Designed for Asia and the Pacific (methodology applicable in other geographical areas). Tool generates corresponding risk value to help determine range of risks (high, medium, low), with supporting recommendations. The ADB webpage gives access to the Asian Development Bank's CC Unit, the work of which involved developing country government agencies and civil societies alongside development agencies to carry out stand-alone projects and regional cooperation adaptation pilot projects. Core elements of the adaptation program include: Addressing vulnerability risks in national development strategies and actions; Increasing climate resilience of vulnerable sectors; Climate proofing projects; Addressing social dimensions Bolstering these efforts are long-standing programs of support for disaster preparedness and response, which are increasingly integrated with adaptation efforts. Through a number of innovative mechanisms, ADB is mobilizing concessional financing to cover incremental costs of adaptation infrastructure costs and supporting the development of private-sector based instruments, such as climate-oriented insurance products. Some resources for vulnerability assessments, regional cooperation and research on adaptation issues and disaster risk preparedness.		
Climate Impacts: Global and Regional Adaptation Support Platform - CI: GRASP	**Interactive and adaptive information platform on climate data, impacts and adaptation**	**http://www.bmu.de/english/climate_initiative/international_climate_initiative/projects/doc/43862.php**
CI: GRASP is a joint project of Potsdam Institute for Climate Impact Research PIK and GTZ Climate Protection Programme, funded by the Federal Ministry for the Environment, aims to provide a sound information basis on climate stimuli, climate impacts, vulnerabilities and adaptation options in threshold countries. The information platform target groups are local decision makers in focus regions - India, Indonesia, China, Brazil and Southern Africa and Tunisia. Designed to aid decisions about adaptation measures to local, regional and national climate change impacts upon different sectors. The purpose is to provide an open, interactive and adaptive information platform on climate data, impacts and adaptation measures for newly industrialising and developing countries, and thus to expand the knowledge base for decision-makers. The platform, which is to be openly accessible online, will build essentially upon maps depicting three types of parameter: climate parameters such as temperature, sea-level rise and extreme precipitation; climate impacts (incl. socio-economic impacts); and adaptation options and experience. The platform provides public and private actors information in order to prevent inappropriate investment under the circumstances arising from climate change. Cooperation with partners in selected target countries will build local capacity for climate impact analyses. Thanks to the interactive character of the platform, additional data can be fed in by users. The platform will be expanded continuously.		
Climate change explorer - CCE / weADAPT portal	**Decision Making Explorer Climate scenario tool + Information portal and learning platform**	**http://wikiadapt.org/index.php?title=Decision_Making_Explorer http://www.weadapt.org/c03/#cce_ www.weadapt.org and http://www.weadapt.org/c02/#wikiADAPT_**
The **Climate Change Explorer** developed by Stockholm Environment Institute SEI and Climate Systems Analysis Group CSAG gathers available climate information to present and future climate hazards and handles the pieces of information towards mapping potential uncertainties and screening potential adaptation options. The rationale is to guide decision makers to move decision making nodes, in appropriate directions. Guidance and tools to choose among the strategies/ measures available to decision makers based on the method of the 'climate envelopes' (i.e. a range of results obtained with several models and local data). Successful integration and dissemination is dependent on creating flexible and scalable frameworks that provide complex analysis tools for advanced users and deliver information to a wider audience. The CCE Tool addresses these needs by packaging data access routines, guidance and customized analytical and visualization procedures that provide users with a sound analytical foundation from which to explore climate variables. It is designed to simplify the tasks associated with the extraction, query and analysis of climate information, thereby allowing users to address issues of uncertainty in devising policy and strategies and in implementing actions. The Climate Change Explorer is an integral part of weADAPT, a collaborative effort to make climate risk management decisions practical, yet robust. The platform assembles "good practices" across the range of issues relating to climate change adaptation, including vulnerability and risk mapping, multi-criteria assessment, decision screening using envelopes and rules, and databases on criteria and actions. It is designed to simplify the tasks associated with the extraction, query and analysis of climate information, thereby enabling users to address issues of uncertainty when devising policies and strategies, and also when implementing actions. This approach makes crucial links between understanding vulnerability, monitoring and projecting climate hazards and planning adaptation processes. CCE provides a way for users to focus on three key assumptions regarding the interpretation of climate science: (i) Understanding the conditions, assumptions and uncertainties of model-based statements about future climate can decision-makers evaluate the relevance of the information, the appropriateness of response		

Name	Primary Focus	Website & Summary description
options, and so make an informed assessment of risk. (ii) An envelope analysis of ensembles, rather than a single model, is the only way of addressing the uncertainty inherent in making a decision which is influenced by the future evolution of the climate system to define the climatological boundaries of potential climate change from a wide range of multimodal projections, driven by the search for climate spaces from the needs of specific localities (iii) Exposure and adaptation are context specific which requires the analysis of different variables, time frames and representations. Central feature of the CCE is that it not only provides analytical routines but also access to downscaled climate data, and user-guidance through a wizard-style interface. **weADAPT** is a collaboration between leading organisations on climate adaptation (SEI, Univ Cape Town, Exeter Univ, IIED, ENDA, Awhere, UNITAR, open to others) and includes innovative tools and methods, datasets, experience and guidance. Funded by EC, DEFRA, UNEP, Sida, and others, it gives experts & practitioners a collaborative knowledge platform that extends to a new adaptation layer in Google Earth. weADAPT pools expertise from a wide range of organisations that contribute to adaptation science and practice. It's main delivery tool for guidance is the platform wikiADAPT, an interactive space for reading about, discussing and contributing to current thinking and experience on climate adaptation, with contributions from different individuals and groups. Provides information about different approaches to adaptation, what different groups involved in adaptation are doing, and the links between adaptation and other fields, such as Disaster Risk Management and the development community. Core themes on Framing Adaptation, Risk Monitoring, Decision Screening, and Communication, as well as different tools and methods, worked examples and useful external links to aid adaptation. Prototypes are being developed (Africa/Asia), to apply guidance on adaptation in different contexts.		
CEDRA	**Climate change and Environmental Degradation – Risk and Adaptation assessment**	**http://tilz.tearfund.org/Topics/Environmental+Sustainability/CEDRA.htm** **http://tilz.tearfund.org/webdocs/Tilz/Topics/Environmental%20Sustainability/CEDRA%20D5.pdf**
CEDRA is an environmental field tool for agencies working in developing countries. It helps agencies working in developing countries to access and understand the science of climate change and environmental degradation and compare this with local community experience of environmental change. Using CEDRA, civil society organisations can prioritise which environmental hazards may pose a risk to their existing project locations, enabling them to make decisions to adapt some projects, stop doing some projects or start new ones. Adaption options are discussed, and decision-making tools are provided to help organisations plan their responses to the hazards identified. NGOs working in Disaster Risk Reduction (DRR) as well as general development NGOs will find CEDRA useful. It is designed to be used by people who are experienced in planning and managing development projects. In order to ensure that development work is appropriate and helps people who are most vulnerable to environ mental and other hazards, a deeper awareness of environmental issues is needed. Assessing risks from the environment is not something done as an afterthought in development planning; it should rather be an integral part of project cycle management. Traditional community-based coping mechanisms to deal with short-term changes in the climate or environment are likely to be relevant, but insufficient to cope with the recent rapid rate of change. New adaptation methods for dealing with the new risks arising from human-induced changes are therefore needed.		
CRiSTAL - Community-based Risk Screening Tool – Adaptation and Livelihoods	**Screening tool designed for project designers and managers to integrate risk reduction and climate change adaptation into community-level projects**	**http://www.cristaltool.org/content/about.aspx**
CRiSTAL is a screening tool designed to help project designers and managers integrate risk reduction and climate change adaptation into community-level projects. It emerged from the *Livelihoods and Climate Change* project, an initiative of the International Institute for Sustainable Development (IISD), the Swiss Foundation for Development and International Cooperation (Intercooperation), the Stockholm Environment Institute – (SEI-US), and the International Union for Conservation of Nature (IUCN). CRiSTAL is a decision-support tool which enables project planners and managers to understand the links between local livelihoods and climate, assess a project's impact on livelihood resources important for climate adaptation, and devise adjustments to improve a project's impact on these key livelihood resources. It helps project designers and managers: Understand the links between livelihoods and climate in their project areas; Assess a project's impact on community-level adaptive capacity; and Make project adjustments to improve its impact on adaptive capacity and reduce the vulnerability of communities to climate change. CRiSTAL has been structured around four framing questions divided into two modules. Is available in multiple formats (e.g., Excel, hardcopy) and languages (English/ French / Spanish). It can be tailored to meet the needs of different sectors and communities, and can be used as part of a suite of tools (e.g. vulnerability assessments, participatory action research) that support local-level vulnerability reduction and adaptation to climate change. Is primarily targeted at project planners and managers working at the community level on sustainable livelihoods and ecosystem management and restoration but can be used in different contexts. CRiSTAL is intended to enhance local adaptive capacity through a better understanding of: How current climate hazards and climate change affect a project area and local livelihoods; How people cope, looking specifically at the resources needed to cope with climate stress; How project activities affect livelihood resources that are vulnerable to climate stress and/or important to local coping strategies; and how project activities can be adjusted so they enhance adaptive capacity.		

Name	Primary Focus	Website & Summary description
GTZ Climate Check	**Climate proofing and emissions saving - Country / project screening tools**	**http://www.gtz.de/en/themen/umwelt-infrastruktur/24205.htm** Literature at http://www.gtz.de/en/themen/umwelt-infrastruktur/24211.htm
This **Climate Proofing Tool** aims to reduce climate change risks in development programmes, with two steps: *Step 1: Pre-Screening:* supplying a rough and rapid assessment of climate risks, such that projects with a low risk are allowed to pass. was developed by the GTZ-BMZ; it is a process to analyse climate risk in project formulation; it can be carried out over 1 to 7 days depending on the cases; the application of the tool will be soon compulsory for GTZ and KfW (German development bank). A booklet illustrating the various steps (*Climate Change Information for Effective Adaptation, A Practitioner's Manual*) is meant to be used by non climate specialists GTZ staff. Other programmes proceed to *Step 2* which involves a more comprehensive risk assessment, conducted during the appraisal mission of a programme. Objectives of step 2 (i) to identify and analyse climate risks for development programmes (on all levels: outputs, outcomes and impacts); (ii) suggest and prioritise potential adaptation measures that increase programme flexibility; (iii) raise awareness and to encourage development practitioners to include measures that will meet increasing climate risks; (iv) provide guidance for monitoring the adaptation measures. Partners and GTZ staff identify climate risks and adaptation options. Tool has contributed to raising awareness of climate change impacts. Main challenge in developing the method is acquiring local and regional climate information, including data on climate stimuli and possible direct or indirect impacts. Manuals are being prepared to provide information about typical climate impacts and possible adaptation measures. Set of extended instruments is to be identified allowing varying depths of analysis.		
ORCHID: Opportunities and Risks from Climate Change and Disasters	**Technical approach to climate risk screening**	**http://www.ids.ac.uk/go/research-teams/vulnerability-team/research-themes/climate-change/projects/orchid**
ORCHID is a systematic climate risk management methodology which assesses the relevance of climate change and disaster risks to an organisation's portfolio of development projects. ORCHID acknowledges that: Climate risks may not be the most important constraint on poverty reduction and so climate considerations need to be embedded in a process that considers all risks. The basis for adapting to the future climate lies in improving the ability to cope with existing climate variations. Climate change projections inform this process to ensure that current coping strategies are not inconsistent with future climate change. Adaptation processes draw on approaches to disaster risk reduction, as well as tackling gradual changes and new hazards. Risk management allows examination of how development processes can contribute to reducing vulnerability to climate change. ORCHID's portfolio screening emphasises raising awareness and conceptualising adaptation as a learning process, and allows for more systematic consideration in the context of development programmes. Based on an initial profile of current and future climate impacts, the process identifies those programmes in regions and sectors that may be at risk from climate impacts, or that present good opportunities for improving adaptive capacity. Drawing on further technical inputs on hazards, impacts and vulnerability, potential risks to programme activities are identified, which are then assessed against existing risk management practices. A range of adaptation options are then identified for tackling unmanaged risks and exploiting opportunities for strengthening adaptive capacity. Multi-criteria analysis is undertaken involving programme stakeholders, ideally including beneficiaries, to determine high priority adaptation options that can be integrated into the programme objectives and activities. This analysis uses criteria developed by stakeholders, including coherence with national policy, flexibility across a range of possible future climate impacts, and cost effectiveness, which is informed where feasible by an economic cost benefit analysis. The process as a whole also helps identify generic strategic lessons for programming and how to incorporate climate risk management. International researchers have piloted the methodology for climate risk screening of development interventions in Bangladesh and India, and in China to pilot a screening methodology for water sector programmes. These pilots have taken a risk management approach to identify high-impact, practical, and cost-effective measures and processes to integrate disaster risk reduction and climate change adaptation into mainstream development activities.		
USAID climate change manual	**Guidance manual**	**www.usaid.gov/our_work/environment/climate**
Adaptation Guidance Manual to assist Missions and partners to understand how climate change may affect their project outcomes and identify adaptation options to integrate into the design for more resilient projects, developed to integrate climate information into coastal zone planning. Rather than producing a pure process driven (road map) document they made the decision to limit the process to half of the publication, and provide in the other half a brief on measures and strategies for coastal adaptation measures. Adaptation strategies are described with 5 comprehensive goals for adaptation. Manual assumptions: Climate variability already impacts economic sectors in developing countries and addressing climate variability and change will be important for the long-term success of development assistance; Project managers and stakeholders will know more about a project than we will (or than a tool can anticipate); project managers are already dealing with uncertainty such as weather and markets; We can assist missions/project managers/project designers by providing methods and information (and we are developing a tool to provide access to appropriate climate information, past and future) to facilitate assessment of possible impacts and adaptation options for projects; Stakeholder involvement is critical – local knowledge and memory of climate changes over time can help identify adaptation options; building stakeholder ownership of project design and implementation is key to project success. The methods employed should be simple.		

3. INFORMATION SERVICES, NETWORKS AND INTERNET-BASED PLATFORMS FOR KNOWLEDGE-SHARING ABOUT PROJECTS, DATA AND TOOLS

(*These enable access to publications and training resources for skills development. Both actual and historical projects are included*)

Name	Primary Focus	Website & Summary description
Advancing capacity to support Climate Change Adaptation (EC DEFRA project – soon closed)	**Project management and knowledge web portal**	**http://www.acccaproject.org/accca/?q=node/6** The ACCCA portal, largely for adaptation researchers and practitioners is a project coordinated between UNITAR, CSAG, SEI, START, ENDA and was funded by the EC, UK DEFRA and the partner organizations. It used 'policy dialogues' to focus project activities on building capacity, engaging civil society, and implementing pilot actions via multilateral / UNFCCC agreements. It aimed to: Identify critical knowledge gaps; design assessment activities to generate new knowledge; prioritize climate risks to stakeholders and climate influenced decisions; assess available knowledge about risks and adaptation opportunities; synthesize relevant knowledge and disseminate communication materials. ACCCA has drawn on lessons about communicating climate risk information in clear terms that are relevant to decision-makers; addressing climate risks and adaptation in an integrated, multidisciplinary way; the importance of engaging stakeholders substantively; and the long-term benefits of partnering institutions from scientific and policy communities for understanding and managing climate change risks.
AdaptNet	**Adaptation strategy sharing community**	**http://gc.nautilus.org/gci/adaptnet** **http://www.global-cities.info** A community of adaptation specialists, sharing the latest information on adaptation strategies, measures, tools, research and analysis, and highlighting best practice and implementation. AdaptNet is RMIT University Global Cities Institute's Climate Change Adaptation Working Group network focused on urban climate change adaptation. This decentralized network creates a set of common knowledge and reference points for participants in the network; it offers information, analysis, and methodology to undertake urban climate change adaptive policy research and analysis. AdaptNet highlights best practice and demonstration projects. It focuses on cities in Australia and the Asia-Pacific region, but acknowledges the global network of cities.
Assessments of Impacts & Adaptations to Climate Change - Multiple Regions/Sectors AIACC (GEF UNEP project – closed)	**Research for development partnership**	**http://www.aiaccproject.org/about/about.html** **http://www.aiaccproject.org/Final%20Reports/final_reports.html** The AIACC programme involved a partnership between UNEP, WMO, IPCC, START, TWAS that funded research to support adaptation decisions via 24 regional study teams that conducted three-year investigations of climate change impacts, adaptation and vulnerability in 46 developing countries. 235 developing country scientists participated in a diversity of work on regional studies, sectors and systems. Included food security, water resources, livelihood security, and human health. Studies are considered to share a common "second generation" assessment approach that places understanding vulnerability at the centre of the assessment, engages stakeholders in the assessment process, and strengthens the information base for making decisions about adaptation to climate change. Research foci: - *Who is vulnerable to harm from climate change and why are they vulnerable? Will these vulnerabilities exacerbate, or be exacerbated by, other environmental and social changes that stress societies? How can people adapt and lessen their vulnerability to climatic and other stresses?* Contributed the bases to second generation assessments that engage stakeholders and oblige a strong focus research on local and regional priorities. 2nd Generation Assessments (2GA) examine vulnerability by analyzing exposures to stresses, including climate change, the sensitivities of exposed people and systems to the stresses, capacities to cope and adapt, and resilience or recovery potential. Also evaluate the range of response options for reducing risks, by evaluating vulnerabilities and adaptation strategies, using the observed impacts of recent variability to understand present vulnerabilities, running socioeconomic scenarios that model multiple and interacting futures. 2007 Final Report here.
BASIC project	**Strengthening institutional capacity programme - turned by IDS into a network for knowledge services**	**http://www.basic-project.net** Provides research, tools, case studies and online networking spaces on climate change and disaster risk reduction. The EU-supported BASIC project links national and international climate policy by strengthening CC institutional capacity for Brazil, China, India and South Africa. Finalised 2007, and was recognised as an action research and capacity development project that supported developing-country analytical work, to determine what kind of national and international climate change actions best fit within their circumstances and priorities. Coordination provided by the Institute of Development Studies, University of Sussex. An India focus of by BASIC was premised on India's varied soils, climate, biodiversity and ecological regions generating vulnerability and adaptation tools and methodologies that could be relevant outside the Indian context.

Name	Primary Focus	Website & Summary description
Climate for Development in Africa - ClimDev	**African Climate Risk Management for development programme**	**http://www.uneca.org/eca_programmes/sdd/events/climate/climdev.pdf** **http://www.wmo.ch/pages/prog/gcos/index.php?name=climdevafrica**
ClimDev is intended to be an African development programme that integrates Climate Risk Management (CRM) into pertinent policy and decision processes throughout the continent. This large programme is envisaged as a 3-phase programme over an 11-year period and intends to set up a Climate for Development in Africa Programme (ClimDev-Africa) as an integrated, multi-partner programme addressing climate observations, climate services, climate risk management, and climate policy needs in Africa. Climate variability is understood to lie in-front of definitive 'climate change', meaning that Climate Risk Management becomes both: (a) A rational way of coping with the effects of climate variability today, and (b) A practical, 'no regrets' way of incorporating longer-term climate uncertainty and risk, into policy and decision making tomorrow. The user-driven programme will support efforts to achieve the Millennium Development Goals. In addition to GCOS, principal partners are the UN Economic Commission for Africa (ECA), the African Union (AUC), the African Development Bank (AfDB), the World Meteorological Organization (WMO). Implemented under a Joint AUC-ECAAfDB Secretariat, potential donors including the UK Department for International Development, GEF, USAID, CIDA, EPA and WB.		
Climate and flood forecast applications in agriculture too	**Interactive, web-based e-learning**	**http://www.webgeo.de/module/applied/FAO/probabilisticforecasts-bgd-fao.html** **and http://www.fao.org/nr/clim/abst/clim_071203_en.htm**
E-learning tool was created through collaboration between the Food and Agriculture Organization of the United Nations, the Asian Disaster Preparedness Center and the Department of Physical Geography at the University of Freiburg, Germany - to assist the Department of Agriculture Extension of the Government of Bangladesh and other interested learners, including disaster managers, to better understand the concepts and implementation of climate and flood forecast applications in the agriculture sector. Based on the training modules jointly produced and tested by the Asian Disaster Preparedness Center and FAO under the project "Support to strengthen disaster preparedness in the agriculture sector" in Bangladesh. Online version released for testing by interested practitioners. Test version consists of six modules: a description of context; basic aspects of weather and climate; bio-physical interactions and impacts; and application of climate and flood information for disaster preparedness. Background reading material, maps and figures are included under the last module. Climate and flood forecast application for disaster preparedness in agriculture refers to the use of the emerging ability to provide timely and accurate climate and flood forecasts as tools to improve decision-making in agriculture and related sectors for enhancing disaster preparedness and reducing societal vulnerability to climate-related risks.		
Center For Hazards and Risk Research - Columbia University	**Disaster inventory project**	**http://www.ldeo.columbia.edu/chrr/research/hotspots**
This project assessed the global risks of two disaster-related outcomes: mortality and economic losses. It estimated risk levels at sub-national scales by combining hazard exposure with historical vulnerability for two indicators of elements at risk—gridded population and GDP per unit area—for six natural hazards: earthquakes, volcanoes, landslides, floods, drought, and cyclones. This information informs a range of disaster prevention and preparedness measures. Case studies explore risks from particular hazards or for localized areas.		
Capacity Strengthening in LDCs for Adaptation To Climate Change – CLACC (project managed IIED)	**Adaptive capacity building community**	**http://www.clacc.net/About%20CLACC/Team/International.html**
Group of fellows and international experts working on adaptation to climate change for least developed countries that aims is to strengthen the capacity of organizations in poor countries and support their initiatives in sustainable development. Operates in 15 countries in the South, 12 in Africa and 3 in South Asia. Brings experts & practitioners together from agencies such as IIED, BCAS, ACTS, ENDA, ZERO. While seeking funding from Sida and others, the website aims to be the first point of contact for actors in adaptation. Based on premise that programs in LDCs require long-term capacity strengthening within governments, as well as civil society. 2004/2005 CLACC strengthened capacities of four regional partners in South Asia (BCAS) East Africa (ACTS), West Africa (ENDA) and Southern Africa (ZERO). Formal aims are to strengthen the capacity of civil society in LDCs to adapt to climate change creating greater adaptive capacity among the most vulnerable groups, establish an information and knowledge system catering to countries dealing with the adverse impacts of climate change and mainstream the NAPA process with key non-governmental stakeholders.		
Climate – Insight	**Consultant network**	**http://www.climate-insight.com**
Climate-insight is a network of consultants, with expertise in climate science, development and policy, providing leadership in climate information knowledge management. Goal is to support clients by enabling a better integration of weather and climate information into decision-making processes and policy generation. Provide robust advice to help manage their weather and climate related risks, by forging 'the missing chain-link' between organisations and individuals who provide, interpret and use weather and climate information. Climate-insight provides: Interpretation of weather and climate impacts on activities across the commercial, government and social sectors; Design, development and management of risk strategies; Design and development of decision-making tools for adaptation planning; Organisation and presentation of training and capacity-building courses; Management of projects reducing impacts of weather & climate on commercial, social, government and development activities.		

Name	Primary Focus	Website & Summary description
Climate Change Adaptation in Africa – CCAA – (IDRC funding programme with DFID funding)	**Development programme and web-based knowledge exchange hub for adaptation pilot projects**	**http://www.idrc.ca/en/ev-94425-201-1-DO_TOPIC.html** CCAA links researchers, practitioners from ENDA-TM, ICPAC, IDS and others. Funded with £31.5 million from DFID, IDRC, Climate Change Adaptation in Africa research and capacity development program supports African countries in their efforts to adapt to the impacts of climate change. It is a program run and executed in Africa by Africans and, to the extent possible, involving the whole of Africa. Purpose of the Climate Change Adaptation in Africa (CCAA) program is to *significantly improve the capacity of African countries to adapt to climate change in ways that benefit the most vulnerable*. Four objectives: (i) Strengthen the capacity of African scientists, organizations, decision makers and others to contribute to adaptation to climate change; (ii) Support adaptation by rural and urban people, particularly the most vulnerable, through action research; (iii) Generate a better shared understanding of the findings of scientists and research institutes on climate variability and change; (iv) Inform policy processes with good quality science-based knowledge. Approach promotes incorporation of indigenous knowledge on coping with climate variability into research projects, based on better-defined research questions, that facilitate the transfer and devolution of results and skills to those who will use them.
CLIMADAPT	**Canada-based network**	**http://www.climadapt.com/** A network of environmental organizations that provide innovative climate change adaptation expertise in Canada and internationally. Tool kit or guideline type documents have been produced for incorporating climate change adaptation into environmental impact assessments, environmental management systems, and the design, development and management of infrastructure decision-making. cooperative efforts of a group of public sector, private sector, academic, and non-governmental organization representatives.
Disaster Environment Working Group for Asia - DEWGA	**Asian Inventory of disaster & environment information**	**http://www.sei.se/programmes/risk-livelihoods-a-vulnerability/projects/1472-m-disaster-environment-working-group-for-asia-dewga.html and www.dewga.org** Regional and informal network involves national government departments working on Environment and Disaster Management in Asia in keeping an inventory of disaster & environment initiatives. Established in DEWGA networks regional and international organisations to guide research, development and capacity building. Goal is to reduce vulnerability and build resilience to disasters arising from coastal hazards and climate change in Southeast Asia. Partners are WWF, IUCN, CARE, the ADPC and the Lab of International Environment and Disaster Management (IEDM) at Kyoto University. Group is supported by the UN International Strategy for Disaster Reduction (ISDR) and UNEP. DEWGA seeks to complement an expanded ISDR Asia Partnership to include the UNEP-led ISDR Partnership for Environment and Disaster Risk Reduction, to ensure that disaster reduction partnerships in the region are connected and undertake activities integrated in the Hyogo Framework.
DFID Climate Change Hub	**DFID funded initiative in response to Bangladesh call for setting-up an international climate change**	**http://www.dfid.gov.uk/procurement/files/ojeuccd.asp** A DFID call to policy makers and practitioners as service providers to establish and manage a major new Centre for Climate and Development to deliver a set of knowledge management, research and tailored advisory services for developing countries and other stakeholders. The proposals call for decisive support to policy-making and practice on adaptation and low carbon development. Hub of the Centre for Climate and Development will comprise a consortium of high quality developed and developing country institutions. This hub will complement partnerships with existing organisations and initiatives, building over time a broad network of collaborating organisations. Key services: Knowledge management; Advisory services for developing country governments and others; Short and longer term research and analysis; Strategic review of knowledge and research on climate change and development.
Ecosystems and Livelihoods Adaptation Network - ELAN	**International network of resource managers, scientists and decision-makers**	**http://cmsdata.iucn.org/downloads/elan_2_pager.doc** This network has been forged to help some of the most vulnerable ecosystems and societies cope with the impacts of global climate change. ELAN is created as collaboration between International Union for the Conservation of Nature and WWF International. Formation is bankrolled with a $2 million grant from the MacArthur Foundation to enable WWF and IUCN to develop and implement measures to help protect fragile ecosystems and societies whose livelihoods they support. Purpose is to link adaptation and ecosystem management networks and serve as platform for sharing information. Decentralized approach will leverage the existing climate adaptation efforts undertaken by various institutions and consortia.

Name	Primary Focus	Website & Summary description
CBA Adaptation Portal and ELDIS resource centre	**Community based Adaptation portal Information Portal**	**www.cba-exchange.org** **http://www.eldis.org/index.cfm?objectId=06B6B65C-F3FF-0FA5-22C491E78DDA01B1** **http://www.eldis.org/go/country-profiles**
CBA-X is a shared online resource designed to bring together and grow the Community-based Adaptation community. It provides a site for the exchange of up-to-date information about community-based adaptation, including news, events, case-studies, tools, policy resources, and videos. News and commentary is supplied about the latest developments in CBA; a range of documents is accessible to guide policy; information is available on innovative approaches, good practice & learning. A tools and practice section gives access to useful tools, manuals and methodologies to help scope out, implement and assess practical grassroots interventions. Eldis is an information portal organised thematically by sector. Enables browsing country-specific content from a range of Eldis partners and editorially selected websites. Portal to a very large volume of resources from many projects. Country profiles are access routes to recent and historical information about climate and disaster issues in development.		
Global Environmental Change and Food Systems GECAF	**International, interdisciplinary research project**	**http://www.gecafs.org/about/index.html**
Global Environmental Change and Food Systems (GECAFS) is an international, interdisciplinary research project focussed on understanding the links between food security and global environmental change. The GECAFS Goal *To determine strategies to cope with the impacts of global environmental change on food systems and to assess the environmental and socio-economic consequences of adaptive responses aimed at improving food security.* Launched in 2001 as a 10-year, comprehensive programme of international, interdisciplinary research focused on understanding the links between food security / food systems and global environmental change, to deliver science-based tools for analysing the socioeconomic and environmental consequences of adaptation strategies, by improving understanding of the interactions between food systems and the Earth System's key socioeconomic and biogeophysical components. Aims are to investigate how global environmental change affects food security at regional scale, determine options to adapt regional food systems to cope with both global environmental change and changing demands for food; Assess how potential adaptation options will affect the environment, societies and economies; Engage the international global environmental change and development communities in policy discussions to improve food security. GECAFS is delivering a number of science-based products to help achieve the long-term aims, for example: An analytical framework for food systems research based on food availability, access and utilisation, to help assess food system sensitivities to GEC; Analytical methods to assess the factors that make food systems vulnerable to GEC, and to assess policy, and management options for reducing exposure to risk and/or increasing coping capacity; Region-specific scenarios of future socioeconomic, ecological and environmental conditions involving food systems; Decision support systems to communicate GEC issues to policy-makers and to analyse how different adaptation options for food systems.		
Global Climate Change Adaptation Network for Africa (	**Network - expertise and capacities**	**Reported in http://carbon-based-ghg.blogspot.com/2009/04/adaptation-network-launching-in-africa.html**
GCCAN This 2009 initiative is supported by Sida, with plans are at an advanced stage for establishing a Global Climate Change Adaptation Network for Africa to spearhead mitigation of effects of climate change in the continent. Idea is to enhance adaptation capacity of developing countries by mobilising knowledge and technologies that build the climate change resilience of vulnerable human systems. A Kenya regional consultative forum on the development of the Global Climate Change Adaptation Network for Africa agreed that networks are necessary to bring together expertise and capacities. The network may comprise experts from Africa, government representatives, civil society organizations, regional bodies, research centres, ground facility centres and donor agencies. Purpose is to improve the applicability of existing knowledge on climate change.		
Global Climate Change Adaptation Centre	**Bangladesh proposal - international research practice centre that serves Asia and beyond**	**http://www.ddrn.dk/filer/forum/File/IARU_selected_abstracts_session_41.pdf**
Proposed in Poznan, Poland late 2008, Bangladesh demanded an international climate change adaptation centre under UN auspices should be set up in Dhaka to research ways of adapting to climate change, titled International Adaptation Centre. The Centre's goals should be determined according to the undertakings of developed countries on emission cuts, technology transfer, finance and capacity building, alongside the collective good sense of a range of developing country bodies, and supportive communities of experts, practitioners, donor and civil society agencies, public and private.		

Name	Primary Focus	Website & Summary description
Knowledge Network on Vulnerability and Adaptation to Climate Change		http://ncsp.va-network.org
National Communications Support Programme (NCSP) and Vulnerability & Adaptation Resource Group. A World Bank network tackling vulnerability, development, poverty alleviation issues. Funded by the Global Environment Facility (GEF) to provide country needs-driven technical and policy support for the preparation of National Communications (SNCs) from Parties not included in Annex I (NAI Parties) to the United National Framework Convention on Climate Change. Launched in June 2006, the NCSP has provided assistance to NAI Parties through a variety of support activities: analyses on the priority needs for assistance, organisation of initiation workshops and thematic training workshops, guidance on the design, planning and implementation of technical studies, development of guidance documents, and technical backstopping. As the vast majority of NAI countries are now starting the preparation of SNCs, the NCSP is expanding its support to include new activities and strength existing ones, in response to the increasing demand from countries. The Resource Centre contains software packages, and data sources on assessing impacts of vulnerability and adaptation and papers on international policy issues. Key topics related to V&A assessments - Methodological frameworks; Climate scenarios; Socio-economic scenarios; on main socio-economic sectors and systems: Agriculture and food security; Water resources; Coastal zone; Ecosystems and forestry; Human health; Human settlement and industry; Tourism. And NAI country regions: Africa; Asia; Latin America; Small Island Developing States (SIDs) Moderated mailing list & Expert directory		
National Adaptation Plans programme - LDCs	**NAPA database**	**http://www.napa-pana.org & http://www.napa-pana.org/private/modules/knowledgebox/external/index.php?kbid=6 http://unfccc.int/cooperation_support/least_developed_countries_portal/submitted_napas/items/4585.php**
The purpose of developing a National Adaptation Programme of Action (NAPA) is to identify the urgent and immediate needs of a country to adapt to the present threats from climate change, as a process, not a single document. Addressing these needs will expand the current coping range and enhance resilience in a way that will promote the capacity to adapt to current climate variability and extremes, and consequently to future climate change as well, uniquely for the Least Developed Countries as they have the least capacity to deal with climate impacts.		
Netherlands Climate Assistance Programme	**Country data for 18 locations**	**http://www.nlcap.net**
Assist participating developing countries to prepare, formulate, implement, and evaluate their policy in relation to climate change. Raise awareness of the problem of climate change in developing countries. Increase the involvement of policy makers, scientists, and 'broad layers' of the population in the climate change debate in developing countries. Promote exchange of experiences between developing countries on climate issues. Impact the UNFCCC negotiating process through the raising of 'burning issues'. Coordinate effectively between NCAP and similar international initiatives. Bangladesh, Bhutan, Bolivia, Colombia Ghana, Guatemala, Mali, Mongolia, Mozambique Senegal, Suriname, Tanzania, Vietnam, Yemen		
OECD Special Advice	**OECD Advisory Notes on Strategic Environmental Assessment for key emerging issues**	**http://www.oecd.org/document/8/0,3343,en_2649_34421_42025864_1_1_1_1,00.html & Strategic Environmental Assessment (SEA) and Climate Change Adaptation**
Advisory Note is to show how SEA approaches can help mainstream **adaptation** to climate change into strategic planning, in order to reduce the hazards, risks and vulnerabilities posed by climate change to systems and populations. Aims to show how SEA can be used to assess how PPPs might mediate climate change risks, for example by facilitating or constraining adaptive choices and behaviour. At a national level, an SEA may help to identify elements of national PPPs that are sensitive to or at risk from climate change, or whose viability in the context of projected future climatic conditions is in question. At a sectoral level, climate change considerations within an SEA might be used to assess strategies for sectoral reform to identify which strategies are, and which are not, resilient under different climate change scenarios, or to identify where adaptation interventions will be required to enhance the resilience of the sector in the face of climate change. Note aims to demonstrate how SEA facilitates the integration of climate change adaptation considerations into planning and decision-making. It is not a prescriptive blueprint and it does not assume that all SEAs should include climate change considerations. It is intended as a point of reference and targets PPPs that are likely to be influenced by and hence need to adapt to climate change or influence adaptive capacities.		

Name	Primary Focus	Website & Summary description
OECD Policy Guidance on Integrating Adaptation to Climate Change into Development Co-operation	**Policy Guidance**	**http://www.oecd.org/document/5/0,3343,en_2649_34361_42471301_1_1_1_1,00.html** **http://www.oecd.org/dataoecd/11/55/42551540.pdf**
Objectives are to: i) promote understanding of the implications of climate change on development practice and the associated need to mainstream climate adaptation in development co-operation agencies and partners countries; ii) identify appropriate approaches for integrating climate adaptation into development policies at national, sectoral and project levels and in urban and rural contexts; and iii) identify practical ways for donors to support developing country partners in their efforts to reduce their vulnerability to climate variability and climate change. Integration of adaptation requires analysis of the governance architecture and the different stages of the policy cycle to identify entry points where the consideration of climate change adaptation could be incorporated. Typical entry points could include various stages in the formulation of national policies, long term and multi-year development plans, sectoral budgetary allocation processes, as well as regulatory processes. On the other hand, the entry points would be very different at the level of on-the-ground projects, where climate change adaptation considerations might need to be factored within specific elements of the project cycle. Central is the notion of a climate lens: i) the extent to which the policy, plan or project under consideration could be vulnerable to risks arising from climate variability and change; ii) the extent to which climate change risks have already been taken into consideration; iii) the extent to which the policy, plan or project could inadvertently lead to increased vulnerability, leading to mal-adaptation or, conversely, miss important opportunities arising from climate change; and iv) for pre-existing policies and plans which are being revised, what amendments might be warranted in order to address climate risks and opportunities.		
Partnership for environment and disaster risk reduction	**Tools for Mainstreaming Disaster Risk Reduction**	**http://www.preventionweb.net/english/professional/networks/private/environments** **http://www.proventionconsortium.org/?pageid=32&projectid=1**
Web portal for DRR & adaptation - AfDB, WB, GTZ, Sida, UNDP, UNISDR, ADCP, SwissRe, ActionAid, many others. Targets are donors, researchers, practitioners. Partnership for Environment and Disaster Risk Reduction is a global Partnership is to strengthen cooperation among partners being active in environment and disaster risk reduction, so that risks from natural hazards are considered in the design of all development projects in hazard-prone areas, so that appropriate measures are taken to reduce risk and projects do not create new forms of vulnerability. This will result in a more cost-efficient use of resources, together with reduced disaster losses. As the human and financial costs of disasters rise, there are increasing demands for better evidence that mitigation 'pays'. Appropriate tools are needed to assess the costs and benefits of mitigation, which can take many forms (human, social and environmental as well as financial). However, there is no coherent set of tools for capturing costs and benefits at present. This project aims to address this gap, by identifying and assessing appropriate tools, giving practical guidance on how to apply them and disseminating this guidance among development decision makers and planners, as well as those involved in implementing and evaluating disaster risk reduction initiatives. Project began in September 2003 and second phase was completed in March 2007. The guidance notes are widely disseminated.		
SENSA	**Monitoring the environmental situation in Southeast Asia**	**http://www.sida.se/sida/jsp/sida.jsp?d=1382&a=25497&language=en_US**
The Swedish Environmental Secretariat for Asia (SENSA) is a knowledge-based entity within the Swedish International Development Cooperation Agency (Sida) which promotes regional development cooperation, serving Sida's head office and its offices in the region. Its aim is also to cooperate with Swedish and regional organisations of importance for an environmentally sustainable development in Southeast Asia. SENSA has no resources of its own to fund projects but it is able to recruit consultants, organize workshops and function as a think-tank. It works independently but is an integral part of Sida. In the middle of a rapidly changing region, SENSA's role is to monitor the environmental situation in Southeast Asia and collect and disseminate information on regional environmental initiatives, trends, policy changes, the operations of regional organisations, relevant environmental research processes and commercial opportunities. SENSA supports regional and multilateral organisations and initiatives, provides strategic advice to Sida's offices and establishes links between regional organisations and Swedish interests, to improve the quality of stakeholders' involvement in the region.		
SEI-UNEP Collaborating Programme on Climate Adaptation	**Risks and Vulnerability programme**	**http://www.sei.se/programmes/risk-livelihoods-a-vulnerability.html**
The RLV Programme involving SEI, UNEP Norway, experts/practitioners supports projects in South and Southeast Asia and Africa, where SEI has financial resources and staff capacity to build enduring partnerships with local organizations and stakeholders to carry out research and policy analysis. Many of our partners are government agencies and non-government organizations, where we are growing research capacity for the future. Project areas are Climate change adaptation, Coastal zone management, Climate and disaster risk management, Multi-stressor approaches to complex environmental challenges, Resilience, adaptive management and governance, Social learning and organizational change, Transitions in risk and vulnerability		

Name	Primary Focus	Website & Summary description
UKCIP Adaptation Wizard		**http://www.ukcip.org.uk/index.php?Itemid=273&id=147&option=com_content&task=view**
Adaptation Wizard is a tool to help adapt to climate change as a 5-step process that helps assess vulnerability to current climate and future climate change, identify options that address key climate risks, and helps develop a climate change adaptation strategy. Presented in a light style and in an action–oriented format to convert theory into practical action. Described as a generic decision-support tool that covers all aspects of climate risk assessment and adaptation in one process. It is designed for application by a broad range of users, from an architect planning the design of a new building, a biodiversity manager developing a climate adaptation strategy. Applicable to a plan, a project, a programme or a policy. An awareness raising and educational tool, serves as a gateway to information/resources UKCIP offers. The Wizard requires answers to questions posed in each step, using guiding principles and resources to inform answers. Can download a notepad and keep a full record of answers to questions, as the basis of a climate adaptation strategy. Check step completion by referring to the checklist at the end of the list of questions. Provides a resources master list and principles of good adaptation.		
UNDP - Adaptation Policy Framework Guide		**http://www.undp.org/climatechange/adapt/apf.html**
Developed by UNDP on behalf of the Global Environment Facility, Adaptation Policy Frameworks (APF) for Climate Change: Developing Strategies, Policies and Measures provides a structured approach to formulating and implementing adaptation strategies, policies and measures to ensure human development in the face of climate variability and change. Pages offer information about the APF and an introduction to the five stages involved in scoping and designing adaptation projects. The APF links climate change adaptation to sustainable development and global environmental issues.		
UNITAR Climate Change Programme	**Regional capacity building support**	**http://www.unitar.org/ccp/**
The **UNITAR Climate Change Programme** (CCP) involves ENDA, ERC, SPREP, CSAG, START, SEI, CIFOR in a regional programme for capacity building support, directed at southern research institutions & NGOs to enhance the capacity of government and civil society representatives in the developing world. Assists developing countries improve their participation in the United Nations Framework Convention on Climate Change process. Fundraises to enable partners (regional centres of excellence) to increase national, local and regional expertise. Creating regional pools of expertise in the developing world, as well as strengthening the infrastructure for delivering capacity building activities. The Climate Change Programme gives priority to Southern research institutions and NGOs that have expertise in the area of climate change and are committed to building capacity. It promotes the work of partner organisations, assists in their fundraising, and facilitates efficient communication.		
World Resources Institute	**Profiles and adaptation practices database**	**http://projects.wri.org/adaptation-database#country & http://earthtrends.wri.org/**
Tool with 135 examples of adaptation projects, policies, and other initiatives as the basis of the report Weathering the Storm: Framing for Adaptation and Development. Project data as Excel form & case abstracts in Word. Database allows sorting cases by region, country, scale, sector, settlement type, impacts, objective, 'targetedness', or strategies employed. Confusion about the relationship between adaptation and development has meant that funding mechanisms may create redundancies or leave gaps in the landscape of critical adaptation and development activities. Drawing on Internet resources, *Weathering the Storm* clarifies this relationship by analyzing 135 projects, policies, and other initiatives from the developing world that have been labelled by implementers or researchers as "adaptation to climate change." The report analyzes the objectives of initiatives and the strategies utilized in implementation to characterize some of the ways that adaptation and development overlap. A continuum of activities from "pure" development to "pure" climate change is proposed as a conceptual framework to understand when different "development" activities may play an "adaptation" function. WRI identifies three "models" of how adaptation and development objectives coincide: "Serendipitous" Adaptation refers to activities to achieve development objectives that incidentally achieve adaptation objectives, when adaptation components may be noticed only after the fact. Climate-Proofing of Ongoing Development Efforts refers to activities added to an ongoing development initiative to ensure its success under a changing climate, with adaptation a means to achieve development. Discrete Adaptation refers to activities undertaken specifically to achieve climate adaptation objectives.		
UNFCCC	**Non-Annex I National Communications - National Reports**	**http://unfccc.int/national_reports/non-annex_i_natcom/items/2979.php**
UNFCCC parties must report on the steps they are taking to implement the Convention, in accordance with the principle of "common but differentiated responsibilities", the contents of these national communications and timetables for their submission is different for Annex I and non-Annex I Parties. National communication includes national circumstances and descriptions of their national and regional development priorities, objectives and circumstances, on the basis of which they will address climate change and its adverse impacts. Includes information on geography, climate and economy which may affect their ability to deal with adapting to climate change, & information regarding specific needs. Global Environment Facility, as an operating entity of the financial mechanism of the Convention, provides financial assistance through its implementing agencies (UNDP, UNEP and World Bank) as well as some bilateral agencies.		

T. 5 List of Stakeholders Consulted/Engaged

NAME	*FUNCTION*	*ORGANISATION*
EC Brussels		
Alessandra Sgobbi	Focal point for assignment	EuropeAid Coop Office E 6
Paul Renier	Head of Sector and Quality Support	EuropeAid Coop Office E 6
Gianluca Azzoni	Support to Env. and Climate Change Integration	EuropeAid Coop Office E 6
Filippo Valentini	Co-ordination & Horizontal Issues, Agro Fuels etc	EuropeAid Coop Office E 6
Peter Brin	Team Leader	Environmental Integration Project
Annie Bonnin Roncerel	Climate Change Specialist	Environmental Integration Project
Sylvie Millot	Policy Co-coordinator, Sust. Management NR	DG Development (Unit B2)
Astrid Ladefoged	Policy Officer - International Relations	DG Environment (Unit C 1)
Robert Reid	International Coordination Officer – CC & Env	DG External Relations (Unit L 3)
Francois Roudie	Policy Co-ordinator, Horiz. Co-ordinator CC & Env	DG External Relations (Unit L 3)
PHILIPPINES		
Nick Taylor	Head of Operations Section	EC Delegation to Philippines
Juan Echanove	Operations Section ~ Env. & Sustainable Development	EC Delegation to Philippines
Camilla Hagstrom	Deputy Head of Operations Section	EC Delegation to Philippines
Emily Mercado	Programme Officer, Operations Section (MTF)	EC Delegation to Philippines
Virginie Lafleur-Tighe	Programme Officer, Operations Section (SPF)	EC Delegation to Philippines
Rita Bustamante	Programme Officer, Operations Section (Health)	EC Delegation to Philippines
Caroline Maningo	Programme Officer, Operations Section (DRR)	EC Delegation to Philippines
Anja Bauer	Task Manager, Operations Section (Health)	EC Delegation to Philippines
Bernd Liss	TA to Department of Environment & Nat Resources	AEAG Consultants
Walter Salzer,	Philippines leader	GTZ
Peter Walpole	Executive Director	Environmental Science for Social Change
Dr Heidi Kawi	Chief Health Programme Officer	Bureau of Internat. Health Cooperation
Mar Wynn Bello	Medical Officer	Bureau of Internat. Health Cooperation
Elmer Benedictos	Engineer	Bureau of Internat. Health Cooperation
Cecille Magturo	Medical Specialist	Bureau of Internat. Health Cooperation
Amelia Dulce Supetran	Team Leader, Environment Unit	UNDP
Anna Caraang Orquiza	National Officer	UNEP
Christine Ramos	Director	Foundation for Philippine Environment
Godofredo Villapando	Manager, Projects	Foundation for Philippine Environment
Antonia Yulo Legoyza	Director	Klima, Atheneo University
Deanna Olaguer	Project Development Officer	Klima, Atheneo University
Rodel Lasco	Country Coordinator	World Agroforestry
Beate Pinisch	Development Worker	World Bank
PAPUA NEW GUINEA		
Aldo Del'Ariccia	Head of Delegation	EC Delegation to Papua New Guinea
Kay Beese	Counsellor, Rural and Human Resources Development	EC Delegation to Papua New Guinea
Thomas Viot	Economics and Trade Coordinator	EC Delegation to Papua New Guinea
Richard Gillett	Manager, Rural Water Supply & Sanitation Progr.	EC Delegation to Papua New Guinea
David Freyne	Attaché	EC Delegation to Papua New Guinea
Imelda Kavu	Programme Officer Rural Development	EC Delegation to Papua New Guinea
Mosilayola Kwayaila	Director, European Union Programme	National Authorising Officer
Monica Lopyui	Monitoring Officer	NAO
Jerry Huekwahin	Senior Aid Coordinator	NAO
Stephen Hugman	Technical Advisor	NAO, DNPM / NAO-SU, Nat. Devlpt Bank
Dr David Shearman	Head, Remote Sensing Centre	University of Papua New Guinea
Dr Ruth CH Turia	Director, Forest Policy & Planning	National Forest Service, Forest Authority
Goodwill Amos	Manager, Forest Planning & Coordinator CC	National Forest Service, Forest Authority
Dr John Moxon	Research Programme Leader	National Agricultural Research Institute

T. 6 Terms of Reference for an Environmental Impact Assessment (Annex 8, EIH)

STUDY TEAM Comments

Note: This model needs to be adapted according to the specific project; the explanations or sections to be completed according to individual circumstances are given *in italics*.

ToR for the Environmental Assessment of (*Name of the project*)

1. Background

[National legislation and] [T][t]he European Commission require[s] an Environmental Impact Assessment (EIA) to be carried out for the formulation of the (*state the name/title of the proposed project*). The EIA must examine the potential impacts the project may have on the environment, as well as options for mitigating and/or optimising these impacts.

COMMENT:
The EIA could include this paragraph, largely and specifically for projects that have been climate-risk screened as under some moderate level of risk, or for other motives related perhaps to the small size of a project, or other strategic considerations.

There may or may not be a relationship between the level of climate risk facing sets of projects within sensitive/exposed sectors, and the accompanying level of environmental risk.

[Optional[24]] At the same time, recognising that the implementation of the project and the achievement of its objectives will also depend on environmental and climate-related risks, constraints and opportunities, it has been decided to also add an assessment of these aspects.

The project is described as follows (*insert a short description, referring to the current logical framework, to be attached; provide key information, such as objective, rationale for the project, location, duration, technologies to be employed, life-cycle of the project, etc.*)

The following technically feasible alternatives have been identified… (*provide a description of the alternatives already identified*).

Existing information on the project and the environment can be found in (*mention already available studies and information including the results of the identification phase, and indicate where/how these documents may be obtained/consulted).* In addition to this EIA, the following studies are also envisaged (*mention any other studies planned in the formulation phase, including feasibility, economic and financial analyses or social impact assessments*).

(*Mention other pertinent background information, such as potential or known projects envisaged in the same area, key stakeholders, legal requirements and existing SEA in the sector).*

2. Objective

The Environmental Impact Assessment will provide decision makers in the European Commission and the partner country with sufficient information to justify, on environmental grounds, the acceptance, modification or rejection of the project for financing and implementation. It will also provide the basis for guiding subsequent actions, which will ensure that the project is carried out taking into account the environmental issues identified.

3. Results

The EIA is undertaken in two stages: first a scoping study and then the EIA study as such. The scoping study will define the issues that need to be addressed in the EIA study, considering the specific context in which the project will be implemented. The activities, calendar and budget for the EIA study will be determined on the basis of the conclusions of the EIA scoping study.

The EIA scoping study will deliver the following results:

1. an overview of the project, the applicable legislative and institutional framework;

[24] If not included in the scope of the EIA, environmental and climate-related risks, constraints and opportunities must be addressed, as relevant, in the project's general formulation study.

2. an indication of the project alternatives (proposed by the EC or other alternatives) and their variants to be studied;
3. a description of the key stakeholders and their concerns;
4. a stakeholder engagement plan (to be implemented while the EIA study as such is conducted);
5. a description of the key environmental aspects and project-environment interactions that should be addressed in the EIA;
6. a description of the geographical area to be considered in the environmental baseline and in the identification of impacts;
7. recommendations on specific impact identification and evaluation methodologies to be used in the EIA;
8. *[optional]* a description of the proposed methodology for identifying and assessing environment-related risks, constraints and opportunities;
9. an indication of the time frames, costs and resources needed to carry out the EIA study.

1) The EIA study will deliver the following:
   - An identification and assessment of the potential significant environmental impacts of the project in its different alternatives.
   - Recommendations, including an Environmental Management Plan (EMP), for the implementation of proposed measures to mitigate negative impacts and optimise positive ones.
   - *[optional]* Recommendations on how to adapt project design (if required) to optimise the exploitation of opportunities, manage risks and operate under the constraints imposed by the natural environment, including climate variability, climate change and the availability or scarcity of natural resources.

4. Issues to be studied

4.1. EIA scoping study

a. Overview of the project and its alternatives

The consultants must describe the project and major project alternatives, especially those which are significantly different from an environmental perspective (e.g. location alternatives affecting different ecosystems, production alternatives involving sizable differences in GHG emissions and/or carbon fixing). The consultants will also define the constraints to be taken into account in proposing mitigation measures and other changes to the project. They must assess whether variations to the proposed alternatives, or additional alternatives, are worth studying. The description of such alternatives should be provided under the heading “Variants to proposed alternatives and new alternatives”.

b. Legislative, institutional and planning framework

A description must be made of the institutional and legislative framework relevant to the project and its EIA, including an indication of the key applicable legislation, planning processes (e.g. land use planning), standards and norms that will have to be addressed in the EIA study. Reference should be made to the CEP and to any existing SEA (if relevant).

c. Description of the key stakeholders and their concerns

The engagement of stakeholders in the EIA process is a key success factor. The consultants should identify key stakeholders (key groups and institutions, environmental agencies, NGOs, representatives of the public and others, including those groups potentially affected by the likely significant environmental impacts of the project particular attention should be paid to typically less represented groups such as women, indigenous peoples and minorities as appropriate). Stakeholders will be engaged in order to identify their concerns and values with respect to the project under consideration. This will allow the identification of key project–environment interactions that will need to be addressed in the EIA study. The stakeholder engagement strategy to be employed should be explained in the consultants’ proposal and will be revised by the Commission and the partner government before being implemented in order to avoid unnecessary conflicts and raising of expectations.

An effort should be made to involve a wide range of possible interest groups (including local authorities, local and regional NGOs, women, and indigenous peoples) in defining issues to be addressed in the EIA. Records must be kept of all consultations and comments received.

d. Description of the key environmental aspects and project–environment interactions that should be addressed in the EIA

Particular attention should be paid to the (direct or indirect) impacts that are likely to be the most significant, considering the sensitivity of the environment, the pressures resulting from the project and the expectations of the stakeholders. Based on these considerations and on background information on the local environment as well on other environmental assessments (including SEAs), the consultants should identify environmental issues to be specially considered under the following categories:

- Physical environment, including (micro-) climate, climate variability and climate change, air quality, water resources (surface and groundwater), geology, geomorphology, soil quality and risk of natural disasters
- Biological conditions: biodiversity (including rare, endangered and endemic biodiversity components), and biological resources of cultural, social, or economic importance
- Socio-economic conditions: consider the aspects that depend on environmental changes (public health; vulnerability to disasters; vulnerability to increasing climate variability and the expected effects of climate change[25]; access to natural resources and associated conflicts), those that can produce environmental impacts, and, more broadly, all the economic and social conditions that might be affected by the project and are not considered in other studies at the formulation stage[26].

Note that project-related emissions of greenhouse gases are unlikely to be considered "significant" at the global scale. Nevertheless, at the project scale a project or some project alternatives may offer significant opportunities to reduce emissions, store carbon or implement the principle of a "climate neutral development path". If this is the case, the assessment of such opportunities should be included in the scope of the EIA.

e. Description of the scope of the environmental baseline

Also on the basis of the information obtained above and on an appreciation of the areas of project influence, the consultants must provide indications on the scope of the environmental baseline needed for the EIA. Distinct geographical units can be proposed according to the type of expected impact (including indirect impacts). All geographical units identified must be justified.

f. Recommendations on specific impact identification and evaluation methodologies to be used in the EIA

The consultants should provide an indication of the most appropriate impact identification and evaluation methodologies to be used in the EIA. Special attention should be given to those environmental interactions that will merit quantitative analysis and those for which qualitative analyses should be carried out.

COMMENTS:
As mentioned above, the consideration of climate risk as an addition to other physical-environment risks is likely to only be appropriate for projects screened as MEDIUM risk, and/or for HIGH climate risk projects where a full in-depth assessment cannot be justified on other grounds.

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g. *[Optional]* Proposed methodology for identifying and assessing environmental and climate-related risks, constraints and opportunities

The consultants should provide an indication of the methodology they plan to use to identify and then assess the risks, constraints and opportunities linked to the natural environment in which the project will operate, including as relevant the availability or scarcity of natural resources (soils, water, energy, materials, …), increasing climate variability, and (to the extent they can be predicted) the projected effects of climate change.

h. Indication of the timeframe, costs and resources needed to carry out the EIA

The consultants must assess the time that need to be allowed for the completion of the EIA study, which should include a definition of the environmental baseline, an analysis of alternatives, the identification of impacts, *[optional]* the identification of risks, constraints and opportunities, their evaluation, and the preparation of recommendations (including definition of mitigation/optimisation measures and the Environmental Management Plan).

Practical considerations must be taken into account, such as allowing for the obtaining of samples in different seasons if required.

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[25] The EIA study should assess the extent to which the proposed project may increase or, on the contrary, reduce the population's vulnerability to the effects of climate change. Annex 7 of the Environmental Integration Handbook provides examples of this type of indirect impact.

[26] In this case, impacts on humans should be disaggregated according to sex, age, or other relevant social criteria.

A description and estimation of the resources required (in terms of budget, person-days) must be provided, including a break-down of costs. If at this stage it is considered necessary to integrate other experts with specific skills, this should be proposed in the scoping report for consideration by the EC.

(*The EC could give an indication of the maximum budget allocated to the EIA study*).

4.2. EIA study

The scope of the EIA study will be agreed with the Commission in co-ordination with the partner government and other international partners, on the basis of the results of the scoping study.

4.2.1. Environmental baseline study

a. Existing environment

The environmental baseline study includes a description of the initial state of the environment in the selected boundaries of the study area, focusing on those aspects that can be influenced by the project. If appropriate, the consultant should also consider those conditions that could influence the efficiency or sustainability of the project. As far as possible, indicators (e.g. Environmental Quality Indices) should be identified for all key environmental variables to be studied and their state (environmental quality) established as a baseline for impact identification and future monitoring. All indicators must be adequately explained and justified. If location alternatives are considered, the study should focus on the differences in the appropriateness and sensitivity of the environment to the pressures resulting from the project.

b. Expected future situation without the project

The consultants should describe the expected trends and situation of environmental variables on the short-medium- and long-term, assuming that the project will not be implemented. This 'no project' scenario will be considered as a benchmark for predicting the project's environmental impacts. Nevertheless if the situation without project seems unrealistic, the most probable alternative should be used as a reference. Assumptions used to predict the future situation and trends should be discussed.

4.2.2. Impact identification and evaluation

The consultants will identify and describe the potential significant environmental impacts of the project alternatives, and evaluate them.

Significant potential environmental impacts (direct and indirect) must be identified, making use of impact identification methodologies proposed by the scoping study. Impact identification should take into consideration factors such as the sensitivity of the environment, the legislative framework, the pressures resulting from the project and the expectations of stakeholders. Impact identification must address the environmental aspects listed in Section 4.1d above and identified by the scoping study.

The impact identification should address, but not necessarily be limited to, the following aspects of the project:

- project activities (under construction, operation and decommissioning/abandonment);
- associated activities and structures (e.g. base camps during construction);
- location;
- general layout, size;
- time span of the project;
- means, materials and resources required (e.g. energy and water consumption, hazardous materials);
- polluting discharges and emissions;
- noise and vibration;
- production of odours, luminous emissions;
- solid and hazardous waste production;
- land-take requirements;
- presence of workers;
- access and transport;
- if relevant, effects on the population's vulnerability to increasing climate variability and the expected effects of climate change.

(If the EC, based on the scoping study, has preference for the use of particular methodologies, or more attention given to specific components, these should be specified and described here).

The state of the environment resulting in the short, medium and long term from project implementation will be described on the basis of the same indicators or criteria as the baseline study. The impact evaluation must be assessed in comparison with the expected state of the environment under the no-project scenario.

The impacts should be described according to their nature and characteristics (e.g. direct and indirect, temporary or permanent, continuous or intermittent, reversible or irreversible, positive or negative, short- medium- or long-term, their magnitude, their mitigability and compensability, their trans-boundary nature, accumulation and synergies with other impacts). Impact significance should assigned, taking into account the local context as well as the views and values of potentially affected groups. Impacts on humans should be disaggregated by sex, age and other relevant social criteria.

Not all impacts need to be quantified. In some circumstances the attempts at quantification may result in meaningless numbers that are of no value to the decision-making process. It is thus important to recognise when a clear description of the impact characteristics and the reasons behind a certain qualification will be more useful (e.g. to propose mitigation measures and base a decision) than attempts to produce less meaningful quantification.

Impacts should be identified for the construction, operation and decommissioning phases of the project, and all associated developments should be taken into account (e.g. power lines associated to a hydroelectric dam, management/disposal of ashes generated by an incinerator, extraction of materials for construction activities).

4.2.3. Measures and recommendations in relation to impacts

Measures must be proposed to enhance positive effects and to eliminate/mitigate/compensate undesired effects. These measures (generally referred to as mitigation measures) must be technically feasible, economically sound and socially acceptable (must take into account the views of the main stakeholders). The consultants must seek ways to optimise such measures, such that one mitigation measure does not reduce the effectiveness of another or, worse yet, cause an undesired impact itself.

The measures can have several distinct aims:

- Reducing the extent, scale or time-scale of activities that produce negative impacts in favour of less damaging activities or activities producing positive effects.
- Changes in the effects of an activity, without changing the activity itself (for example, adding anti-pollution filters).
- Strengthening the protection of the receiving environment with respect to project impacts or other hazards.
- Rehabilitating or restoring damaged resources.
- Compensating for damage, e.g. by achieving improvements to resources similar to the ones affected.

The residual impacts (i.e. the final environmental impact after the application of the proposed mitigation measures) must be identified and assessed. Based on this assessment the alternatives must be compared and recommendations made on the best alternative. The comparison of alternatives must be summarised in tabular form.

4.2.4. Environmental Management Plan

The Environmental Management Plan (EMP) is a document that identifies the actions needed to implement the EIA recommendations, including environmental monitoring required during the implementation phase of a project. The EMP should clearly translate the recommendations from the EIA into an operational plan.

The EMP of the project should include:

- *a table (logical framework) showing the objectives, expected results, OVI, activities (mitigation/optimisation measures), and responsibilities for the implementation of those activities;*
- *institutional arrangements for its implementation and for environmental monitoring: responsibilities, role of the environmental authorities, participation of stakeholders;*
- *suggestions for contracts (environmental clauses: standards, potential requirement to prepare an Environmental Management Plan of the enterprise) and contracting modalities (such as payments linked to results);*
- *a monitoring and supervision plan (including appropriate indicators, frequency of monitoring, means to gather and analyse the data, reporting system);*
- *a response plan in case of accidents or unexpected results from the environmental monitoring;*
- *a proposed schedule for activities (monitoring and mitigation/optimisation measures);*
- *an indication of means (including personnel, vehicles) and costs of implementing the EMP.*

4.2.5. Limitations of the impact assessment study

The major difficulties (and therefore the possible weaknesses) of an EIA occur essentially at the level of identification and evaluation of impacts, these difficulties include:

- The identification of impacts being affected by the inherent uncertainty of predictions, especially when the system being studied is complex, poorly understood, dynamic, unstable, and subject to natural disasters or to the interaction with other projects.
- The evaluation of impacts that sets methodological difficulties with respect to grouping of criteria or multi-criteria comparisons between variants.

The consultants should underline all the major limitations, weaknesses and uncertainties of the study. The consultants are required to state any assumptions made in the prediction and assessment of the potential environmental impacts and risks, to highlight areas where information is deficient and to make clear how the assessment of significance has been determined, for example the use of established standards, quality objectives, stakeholder views and professional judgement.

4.2.6. Conclusions on environmental impacts

This section will summarise the key results of the EIA, the recommendations (referring to the draft EMP to be attached) and the assessment of the residual impacts. The consultants are also required to provide any information relevant for further economic and financial analyses or for the general formulation study. The limitations of the EIA and its key assumptions should be articulated.

4.2.7. *[Optional]* Identification and evaluation of environmental and climate-related risks, constraints and opportunities

COMMENTS:

The method proposed below is adequate and would be useful under the conditions outlined in earlier sections. The five filters of relevance, effectiveness, efficiency, sustainability and impact would be usefully applied in this broad scoping exercise.

As mentioned, in this context, it would be unlikely to clearly resolve the stakeholder concerns of higher climate risk projects, by leading to adaptation options that were rigorously-identified, participatory-defined and properly costed.

The consultants will identify and describe the potentially significant risks, constraints and opportunities associated with the natural environment in which the project will operate, including (but not necessarily limited to) the following aspects:

- availability – or scarcity – and quality of the natural resources (e.g. water, land, soils, energy, materials, minerals, plant and animal species, ecosystem services) on which project implementation and the achievement of objectives will depend, taking into account existing pressures, current trends and (to the extent they can be predicted) the projected effects of climate change;

exposure to climate-related risks (e.g. increasing climate variability, expected effects of climate change); This will be done by reviewing relevant **national, sub-regional and local** studies on the effects of climate variability and climate change, including proposed responses to address those effects by project partners and within the project context as relevant. These responses may include technical, policy and institutional components.

- exposure to other environmental risks or constraints (e.g. biological conditions, pests, invasive species, wildfires, pollution originating from other human activities outside the scope of the project);
- exposure to natural disasters, semi-natural disasters and technological accidents, including those that may become more severe or more frequent as a result of climate change.

Although the analysis is likely to point out primarily to risks and constraints, the existence of opportunities associated with the natural environment (e.g. availability of abundant natural resources which if properly used and managed can improve the project's effectiveness, efficiency or sustainability; positive developments associated with some of the projected effects of climate change) should also be investigated.

The main environmental and climate-related risks, constraints and opportunities associated with the project must be identified making use of the methodology proposed by the scoping study. In order to determine which of them are "significant" and may thus require a change in project design or the adoption of specific adaptation measures, it is suggested to characterise and evaluate risks, constraints and opportunities against the following criteria:

- relevance: are the identified risks, constraints and opportunities somehow relevant to the problems the project aims to address and to its objectives?

- effectiveness: can the identified risks, constraints and opportunities positively influence the achievement of project results and objectives, or on the contrary jeopardise it?
- efficiency (i.e. “value for money” or “value for resources”): can the identified risks, constraints and opportunities contribute to the production of outputs and results at a “low” or “reasonable” cost in terms of resource use, or on the contrary lead to a disappointing “ratio” between outputs/results produced and resources employed?
- sustainability: can the identified risks, constraints and opportunities promote or on the contrary prevent the sustainable production of project benefits over its planned lifetime, from a financial, economic, environmental and social point of view?
- impact: can the identified risks, constraints and opportunities contribute to the generation of positive, or on the contrary negative, overall developmental impacts of the project on the wider society in which it operates?

4.2.8. *[Optional]* Proposed adaptation and risk management measures

COMMENTS:
Again, our view is that this route would only deliver reasonably-founded adaptation options for MEDIUM climate risk projects, where resolving these is neither marginal nor critical to the project achieving its purpose.

Where significant risks, constraints and/or opportunities have emerged from the above evaluation, the consultants should propose measures and formulate recommendations to improve (if necessary) the integration of these factors into project design. Recommendations will take into account any measure already put in place or considered by project partners, as well as their capacity to undertake such measures. Actions may include:

- measures to strengthen the project and project partners adaptive capacity in the face of increasing climate variability and climate change (e.g. building early warning or emergency preparedness and disaster risk reduction mechanisms , diversification of income sources, improved access to financial services including insurance, development of capacities in these areas);
- measures to control or manage some identified risks (e.g. choice of project location to reduce exposure to natural disasters);
- measures to improve the project’s ability to operate under identified constraints (e.g. choice of most water-efficient or energy-efficient production options);
- measures to better exploit some opportunities offered by the natural environment (e.g. use of a locally abundant source of renewable energy).

If the proposed adaptation, optimisation or risk management measures involve an additional cost (compared to the options currently considered), the report should include an estimation of these costs. It should also identify who would be in charge of implementing these measures.

4.2.9. *[Optional]* Limitations of the risk and constraint assessment

The consultants should underline all the major limitations, weaknesses and uncertainties of this part of the study. They are required to highlight areas where information is deficient and to make clear how the assessment of significance has been determined, for example the use of quality objectives, stakeholder views and professional judgement.

4.2.10. *[Optional]* Conclusions on environmental and climate-related risks, constraints and opportunities

This section will summarise the key results of the second part of the study, the recommendations and a brief description of the residual risks (i.e. those that cannot controlled or satisfactorily managed within the limited scope of the project). The consultants are also required to provide any information relevant for further economic and financial analysis or for the general formulation study. The limitations of the opportunity and risk assessment and its key assumptions should be explained.

5. Work plan

The work plan should include but not necessarily be limited to the following activities:

EIA scoping study

- Fact finding/data collection
- Identification and engagement of stakeholders
- Analysis/preparation of recommendations and scoping report

EIA study

- Review of documentation (e.g. CEP, relevant existing SEAs, identification and pre-feasibility reports)
- Review of relevant environmental literature, environmental policy and legislation framework (legislation, regulations and standards)
- Field work and analyses, including engagement of stakeholders
- Impact identification and evaluation
- Preparation of mitigation/optimisation measures
- Preparation of the EMP
- Preparation of the final EIA report

On the basis of the proposed work plan and time schedule outlined the consultants must provide a detailed work plan for the EIA study in their proposal.

6. Expertise required

The proposed mission shall be conducted by a team of (…) experts, who should have the following profiles:

- Expert level I or level II with at least 10 years experience in conducting environmental impact assessments. She/He would be the team leader.
- (…) experts level II with (5)10 years experience and with a technical background in ….(*The number of experts and specialities should be identified according to preliminary scoping studies; Mention preferably that local experts should be included in order to contribute to the transfer of know-how and have local/regional expertise/knowledge in the team*).

The experts should have excellent skills in (...). (…) will be the working language *(although the final report must be presented in …).*

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

7. Reporting

7.1. EIA scoping study

The scoping study must be presented in the format given in Appendix 1.

The detailed stakeholder engagement strategy must be presented two weeks after kick-off; (*number*) copies are to be presented to (*names and organisations*) for comments.

The draft scoping report in (*number*) copies is to be presented to (*names and organisations*) for comments by (*date*). Comments from the Commission should be expected by (*date*). The consultants will take account of these comments in preparing the final scoping report. (*number*) copies of the final scoping report in (*language*) are to be submitted by (*date*).

7.2. EIA study

Feedback on the scoping study will be provided no later than (*number*) weeks after its submission, setting the scope of the EIA study. The EIA study will begin no later than (*number*) weeks after this date.

The EIA report must be presented in the format given in Appendix 2. The underlying analyses are to be presented in appendices to this report.

The draft EIA report in (*number*) copies is to be presented to (*names and organisations*) for comments by (*date*). Within (*number*) weeks, comments will received from (*list the authorities*).

The consultants will take account of those comments in preparing the final report (maximum…pages excluding appendices). (*number*) copies of the final report in (*language*) are to be submitted by (*date*).

8. Presentation of the proposal

The proposal must include an understanding of the Terms of Reference and a description of the general approach to the whole EIA in accordance with these ToR, highlighting the following: the proposed methodology forthe engagement of stakeholders; the proposed approaches for the definition of the environmental baseline; and the proposed methodologies for impact identification and evaluation (including the description of specific tools proposed).

(According to the contracting modality used the EC should indicate the form in which they wish consultants to make their financial proposal, e.g. break-down by categories of costs, as well as indicate the maximum budget for this contract).

9. Time schedule

(*Insert time schedule*).

The consultant should respond to this time schedule and indicate in their proposal how they intend to organise the work for this purpose. The time schedule can be revised according to the results of the scoping study.

10. Appendices

Appendix 1. Standard format for the EIA scoping report

Maximum length of the main report (*without appendices*): 25 pages.

The following text appears on the inside front cover of the report:
This report is financed by the European Commission and is presented by the (*name of consultant*) for the … (*National Institution*) and the European Commission. It does not necessarily reflect the opinion of the … or the European Commission.

1. Executive summary

2. Description of the project under consideration and its alternatives

3. Applicable environmental legislative and institutional framework

4. Key stakeholders and their concerns

5. Key environmental aspects and project-environment interactions to be addressed in the EIA

6. Scope of the environmental baseline and areas of project influence

7. Recommendations on specific impact identification and evaluation methodologies

8. *[Optional]* Proposed methodology for identifying and assessing environmental and climate-related risks, constraints and opportunities

9. Time frames and resources needed to carry out the EIA

10. Technical appendices

    I. Stakeholder engagement methodology
    II. List of stakeholders consulted (including contact details)
    III. Records of stakeholder engagement
    IV. List of documents consulted

Appendix 2. Standard format for the EIA report

The following text appears on the inside front cover of the report:
This report is financed by the European Commission and is presented by the (*name of consultant*) for the … (*National Institution*) and the European Commission. It does not necessarily reflect the opinion of the … or the European Commission.

1. Executive summary

2. Background

    2.1 Project justification and purpose
    2.2 Project location
    2.3 Project description and associated activities
    2.4 Alternatives
    2.5. Environmental policy, legislative and institutional framework

3. Approach and methodology

This chapter must set out the approach and methodology used in the EIA and how the data and information collected has been incorporated in the findings and recommendations.

3.1 General approach
3.2 Geographical or mapping units
3.3 Environmental quality indicators
3.4 Assumptions, uncertainties and constraints

4. Environmental baseline study

5. Impact identification and evaluation

Cumulative effects and interaction between effects could form additional subject headings to ensure that these aspects are not overlooked. Table and diagrams should be used to summarise and clarify findings in this chapter.

6. Mitigation/optimisation measures and residual impacts

7. Conclusions and recommendations on impact mitigation and optimisation

7.1. Statement of impact

This section must include one of the three 'statements of impact' set out below:

The alternative(s) (name or number of the concerned alternatives) will not have a significant environmental impact, providing that measures recommended in the EIA are followed through.

or:

The less damaging alternative(s) (name, or number) will have some significant environmental impacts, which cannot be feasibly mitigated. Therefore, it is recommended to identify and assess additional alternatives or to check that the expected social and economic benefits are sufficiently high in order to justify the project despite its environmental impact.

or:

Each alternative will have a significant and unacceptable environmental impact irrespective of proposed mitigation and monitoring measures. Therefore, it is recommended that the project proposal is comprehensively re-worked and alternatives re-assessed.

7.2 Conclusions and recommendations

This section must present a clear statement of the conclusions and recommendations on actions to be taken to ensure that environmental issues are adequately addressed in subsequent project preparation, implementation, monitoring and evaluation phases. These conclusions and recommendations must be complete, yet concisely and clearly formulated, so that this section can be incorporated into the project documentation.

8. *[Optional]* Identification and evaluation of environmental and climate-related risks, constraints and opportunities

9. *[Optional]* Proposed adaptation and risk management measures

10. *[Optional]* Conclusions and recommendations on environmental and climate-related risks, constraints and opportunities

11. Technical appendices
- Input into the logical framework planning matrix of the proposed project design – intervention logic, indicators, assumptions and preconditions.
- Maps of the project area and other illustrative information not incorporated into the main report.
- Other technical information and data, as required.
- Records of stakeholder engagement.
- Draft EMP (Environmental Management Plan).

12. Other appendices
- Study methodology/work plan (2–4 pages).
- Consultants' itinerary (1–2 pages).
- List of stakeholders consulted or engaged (1–2 pages).
- List of documentation consulted (1–2 pages).
- *Curriculum vitae* of the consultants (1 page per person).
- ToR

T. 7 Terms of Reference for a Comprehensive Assessment of High-Risk Climate Change Project

The Study Team was provided with a proposed Terms of Reference for undertaking an assessment of projects that are considered to be under high climate risk.

The following comments are offered.

Annex xx. Terms of Reference for a Comprehensive Assessment of High-Risk Climate Change Project

ToR for the comprehensive assessment of the High- Climate Change Risk [*name of the project*] [27]

1 Background

The screening carried out according to Annex 7 lead to the conclusion that this project is highly exposed to climate change risks because:

- [Substantial parts of the project are directly and significantly exposed to the effects of climate variability and climate change and no capacities or measures are in place to address them] – or
- [Circumstances might exacerbate vulnerability].
- [Some adaptation policies are in place or planned, but some elements of the project are exposed]

(Give a brief overview of the project context and the reason for the EC to conduct a comprehensive assessment).

COMMENT:

This section on 'background' would benefit by mentioning that criteria for high risk should also include sensitivity to climate change impacts with the first point to be split into two – separating out capacities and measures to address exposure.

The full criteria list could include:

- Substantial parts of the project are directly and significantly exposed to the effects of climate variability and climate change;
- Sensitivities are high to climate change of key project inputs and activities; the assets of stakeholder communities and their organisations; and of ecosystems within which the project will work;
- Limited or no capacities or measures are in place to address the project exposure and sensitivity;
- Project outcomes might exacerbate vulnerability (when mal-adaptation occurs) and climate change could affect the assets of beneficiaries in the long-term;
- Opportunities opened by climate impacts have been identified that require appraisal to take advantage of them; and,
- Some adaptation policies are in place or planned though elements of the project are still exposed and/or sensitive.

2. Objective

The main objectives of a comprehensive climate risk assessment are to identify:

a. Projects for which climate change impacts represent too high risks to the sustainable achievement of its objectives.

b. Opportunities to incorporate appropriate climate change risk management efforts, adaptation options and building adaptive capacity to improve the climate proofing of the project.

COMMENT:

Climate resilience could be considered to be a more appropriate term than climate-proofing since the latter implies surety, whereas in practice that is unknown and cannot be guaranteed.

Some suggested additions:

[27] [**Note**: Explanations or sections to be completed according to individual circumstances are given in italics].

a. Projects for which climate change impacts represent too high risks to the sustainable achievement of its objectives during the project lifespan

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3. Results

This assessment will deliver the following results:

1) An inventory of available information on current climate variability and climate change related impacts relevant to the context of the project.

2) An overview of key factors and trends influencing the country's development and stability relevant to the context of the project.

3) A review of relevant national or sub-regional studies on the effects of climate variability and climate change to allow an understanding and an assessment of the major factors that determine climate dynamics in the region and their relationship to major climate change dynamics relevant to the context of the project identified under item 1) and produce and in-depth climate risk assessment.

- A review of relevant existing adaptation measure in place, information about efforts to address climate variability and climate change issues, options and capacities to adapt relevant to the context of the project. The review should identify the elements of resilience and relevant indicators that are fundamental to adapting to climate change for this project.
- An inventory of the relevant institutional and adaptation environment to provide an initial scoping database of the set of institutions, individuals, development practitioners and researchers working on climate change adaptation. This should include an in-depth review of the policies and institutional capacities to address climate change adaptation priorities at national and local level.
- In the case of rural development project, a process leading to a response-based approach to evaluate past and present risk patterns, impacts on the local livelihood systems, institutional and community responses will be initiated in order to understand how current institutional/policy mechanisms and coping strategies could be strengthened to withstand likely higher amplitude and frequency climate impacts in the future with proper adaptation measures.
- In any circumstances, the identification of adaptation options that will reduce the impacts identified in the in depth climate risk assessment. They should include a description of the interventions (its objective, location, timing and responsibilities for implementation and financing); the estimated costs benefits as well as the feasibility of this intervention. The proposed adaptation options should be ranked and prioritised according to their relevance.

COMMENTS:
3. Results
This list is appropriate and required to produce the result.

Highlighting rural development projects may be limiting – vulnerability information would be needed for most other sorts of development project e.g. infrastructure, tourism etc

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4. Assessment methodology

The methodology used to undertake this assessment should be locally adapted and justified according to the context of the project. Please use the technical guidance provided at the end of the document (see the Technical background, page 5 to 9)

COMMENTS:
Merely identifying the (high) susceptibility of a project to climate change will not in itself produce a project that can be made resilient. Climate-change impact (particularly climate variability) on a project is not always the challenge (particularly one where there is a notional high risk). The challenge is dealing with the governance context of the project. Inability to meaningfully implement "climate change" strategies or plans (or whatever the national equivalent is) has far more potential during the lifespan of a project to compromise a development project's objectives.

Consequently, it is suggested that the methodology should also require a detailed evaluation of the stability, motivation, capacity and resources of the beneficiary government to implement its climate risk management strategies and plans.

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5. Work plan
The work plan should include, but not necessarily be limited to, the following activities:

- Consultations with EC country desk officers and other relevant officials, the EC Delegation and relevant national project partners the national climate change authorities key international donors, plus key national and international civil society actors operating in the field.
- Review of key documents and reports, including (include here a list of key documents already identified). These are likely to include programming and existing project documents. Communications under the United Nations Framework Convention on Climate Change (UNFCCC) and National Adaptation Programmes of Action (NAPAs) for the Least Developed Countries (LDCs) and key relevant existing studies (IPCC or other bilateral funded work).
- On the basis of an initial review of the project context and the availability of relevant climate change and vulnerability information, the consultants should present and justify their selection of assessment methodology to the relevant authorities (EC and national partners) before proceeding to undertake the assessment.
- Field visits to sites of key environmental concern should be undertaken.
- A detailed work plan should be proposed that will reflect the outline work plan and time schedule given with these Terms of Reference.

COMMENT:
Specific mention could be made of the Country Environmental Profile (assuming that it has been undertaken using revised terms of reference).

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6. Expertise required

The assessment shall be conducted by a team of (two) experts who should have the following profile:

- Expert level I or level II with at least 10 years experience in the context of the project, combined with solid experience in undertaking in depth climate change assessments. She/he will be the team leader.
- Expert level II with 10 years experience and with a background complementary to the team leader.

In addition:

- Previous working experience in the country or the region is requested for at least one team member.
- Familiarity with European Commission guidance PCM programming and country strategies.
- Experience of participatory planning processes and gender issues would be an advantage.

The experts should have excellent skills in problem analysis and relevant experience to understand local climate context as well as livelihood context (knowledge on climate science would be an asset). They will be the working language although the final report must be presented in ….

COMMENT:
It is suggested that it would be beneficial to have national team member (particularly one who has worked on the 2nd National Communication to UNFCCC)

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7. Reporting

The results of the assessment should be presented in the format given in Section 9 of these ToR. The draft assessment, in [number] hard copies and electronic version (Microsoft Word), should be presented to […] by [date] at the latest. Within [5] weeks, comments on the draft assessment will be received from the EC. The consultants will take account of these comments in preparing the final report (maximum 50 pages excluding appendices). The final report in [language] and [number] copies is to be submitted by date].

8. Time schedule (indicative - to be adjusted according to project context)

	Expert I (Leader)	Expert II
Desk analysis, including briefing to the team leader in [place]	5 to 10	5
Field phase including travel	5 to 15	4 to 8
Report finalisation	6	4
Debriefing in [place]-not later than [date]	2	
Final report end [date]	2	4
Total days	20 to 35	17 to 21

9. Format for a project climate change risk and vulnerability assessment

Maximum length (excluding appendices): 50 pages.

The following text appears on the inside front cover of the report:

This assessment is financed by the European Commission and is presented by (name of consultant) for the … (National Institution) and the European Commission. It does not necessarily reflect the opinion of the … or the European Commission.

1) Summary - the summary should succinctly and clearly present the key issues described in the assessment following the order of headings given below. The summary should not exceed 6 pages

2) Description of the project under assessment – from existing sources

3) Assessment of available climate variability and climate change information - on expected climate change impacts relevant to the context of the project

4) Overview of key factors and trends – influencing the country's development and stability.

1) Review of relevant existing efforts to address climate variability and climate change issues – including relevant national or sub-regional studies on the impacts of climate change including proposed responses.

2) Justification of the selection of assessment methodology – including a description of the methodology, its advantages and limitations.

3) Results – of climate variability and climate change assessment.

4) List of Adaptation interventions – details of the individual adaptation recommendations, (adaptation measures in ranking order) including operational modalities, rough estimated costs and other relevant practical considerations.

5) General recommendations – on whether to eliminate, or accept adaptation interventions to the project to minimise its impact on assessed vulnerability.

6) Technical appendices - As appropriate in the context.

7) Other appendices

I. Consultants' itinerary
II. List of persons/organisations consulted with their affiliation and contact details
III. List of documentation consulted
IV. Curricula vitae of the consultants (1 page per person)
V. Terms of Reference for the assessment

Analysis of climate data and model variations

This background note offers basic guidance for consultants who can also choose to use other scientific sources of information. Four guiding questions, listed in Table 1 below, are proposed to frame this exercise. Answering them will help preparing the climate variability / climate change assessment and projected impacts in the local project area. They will also help ensuring that the selection, the quality, the accessibility and the source of data are reviewed and improved if needed.

Table 1: Data & information needed to analyse current climate hazards and risks, and climate change.

QUESTIONS	WHERE TO FIND THE INFORMATION TO ANSWER THEM (SEE BOX 1 FOR WEBSITE LINKS)
1. What are the current major climate hazards and associated risks from past and current experiences within the local project area?	Data on current climate hazards, risk and variability will aid in answering this question. Possible information sources: • Inventories, maps and data series of natural events and climate related risks (e.g. drought, flooding) • National plans / evaluations on climate, desertification etc… • Disaster preparedness plans, inventories and reviews • Meteorological data (observations) Indicators of historical outcome risk on decadal time scales constructed from the Emergency Events
2. What are the projected trends for these hazards?	Information regarding changes in frequency and spatial extent of climate related events, as well as changes in coping thresholds will aid in answering this question. Information sources can come from: • National Communications on Climate Change • Supplementary data can also be derived from: - Climate variability data from Meteorological Services (including UNFCCC national communication). - GCM (Global Climate Models) outputs (especially regional) and scenarios (2000-2050) - IPCC Assessment Reports
3. What kind of impacts do these hazard factors pose to the project area (past and present)	Information on the impacts of hazards can be drawn from: • Disaster preparedness and action plans. • Inventories, maps and data related to the impact of past hazards. • IPCC Assessment Reports

Source: Adapted from SEI – NAPA training

Reviewing, and answering these three questions will allow gathering enough information to carry out a climate variability / climate change in depth analysis. The concrete tasks to obtain the answers to the three key questions are listed in Table 2 below.

⇒ Column 1 provides the list of tasks to carry out through this assessment
⇒ Column 2 pulls together the source of information needed to establish current risks and hazards
⇒ Column 3 is proposing additional information to review to assess climate change. If the information gathered from column 2 is insufficient and /or if additional work is feasible.

Table 2: Summary of the tasks to carry out to complete climate variability and climate change

1. Tasks	2. First, use information on current climate-related risks & hazards.	3. Search further information on future climate change.
Define the linkages between climatic risks and hazards	Data on climate variability and extreme events.	Scenarios of future variability for critical thresholds and trends
Identify the vulnerable groups	Socio-economic and environmental indicators of vulnerability.	Scenarios of future socio-economic and environmental conditions
Determine the temporal scale of the project requirements (i.e., agriculture, or rural development?)	Short term data (1-20 years).	Long term data (20-100 years)
Determine the spatial scale of the project	Local – regional data	Linkages of local scales to regional and global trends and scenarios
Identify the types of risks and hazards	Data and expert judgment on known risks	Scenarios and expert judgements on future risks
Achieve the end goal of the analysis	Information about reactive and proactive actions	Information about adaption options
Provide justification adaptation	Information about increases of risks	Information about adaptive capacities
Take into account the degree of uncertainty of information	Sensitivity of adaptation strategies to present risks	Evaluate the robustness of the adaptation strategy with a wider range of uncertainties (scenarios)

Box 1. Source of Information on climate trends - Short and Long term

It is possible to analyze the evolution and trends of recent climate parameters, from the most basic data (e.g. maximum and minimum temperature and rainfall), to elaborate indicators (duration of the growing season), complex indices (satisfaction index of water requirements for the growing season) to allow the identification of important thresholds and trigger points on short and medium time scales. If this data is not available, it is possible to consult global and regional data bases that provide monthly averages for a variety of climatic parameters.

Please consult:
IPCC Data Distribution Center http://www.ipcc-data.org/
The Climate databases of the FAO http://www.fao.org/nr/water/infores_databases_climate
The IRI global climate predictions http://portal.iri.columbia.edu/portal/server.pt

It is also necessary to pay particular attention to sectoral studies at both regional and national levels, where data and information can be found concerning the critical thresholds and trigger points of these sectors. For example, poverty reduction and food security profiles and reports will generally include information on necessary caloric intake, the duration of the growing seasons etc. In addition, there exist national and regional reports on hazardous climate phenomenon in relation to food security.

Please consult
Emergency Events Database (EM-DAT)
http://www.emdat.be/
The famine early warning systems of the FAO
http://www.fao.org/giews/english/index.htm
or the FEWS NET
http://www.fews.net/Pages/default.aspx
For the evolution of long-term climate trends and thresholds, data and information can be derived from climate change scenarios. Climate change scenarios however are both on global and/or regional spatial scales, and over time scales of 100 years.
Please consult: IPCC Data Distribution Center
http://www.ipcc-data.org/
and for regional impacts of climate change see http://www.grida.no/publications/other/ipcc_sr/?src=/climate/ipcc/regional/
Please also consult the World Bank Cllimate Change Portal which is providing readily accessible climate data for a risk assessment trough a mapping visualization tool; this online information is the most complete set of data available on line at:

http://sdwebx.worldbank.org/climateportal

Rather than rejecting projects on the basis of climate change risks, the team should explore adaptation options and opportunities that are directly relevant in the context of the 'project climate proofing' approach. These options should necessarily decrease stakeholder's vulnerability. They should also possibly contribute building a bridge between the Disaster Risk Reduction and Climate Change programming. For each opportunity selected, specific activities in the project that might be enhanced or added should be noted in the third column.

Using the results obtained from the Climate Risk Assessment, an initial checklist for climate adaptation capacity opportunities should be made according to the table 3 below.

Table 3: Example of possible Opportunities for Adaptation Interventions

Objective	Relevance for this project[28]	Specific Project Activity Proposed
Improving disaster risk management, general planning and institutional strengthening.	• High • Medium • Low	
Improving Finance and economic risk management at national and local level (including crop or livestock insurance).	• High • Medium • Low	
Enhancing environmental § social monitoring and early warning.	• High • Medium • Low	
Measures to improve spatial planning and land use change.	• High • Medium • Low	
Education and awareness, especially on environmental change and management.	• High • Medium • Low	
Others such as - Promoting technology changes, - Improving infrastructures - more….	• High • Medium • Low	

[28] Indicate in the second column the relevance for the proposed adaptation objective:

- High: this adaptation intervention should be included in the project design; a high rating would be assigned to a post reconstruction project that includes working with local Disaster reduction NGOs, sectoral planning ministries and disaster/emergency response organizations that should have an interest in climate change adaptation. A relatively small additional activity to build capacity related to climate disasters might be warranted.
- Medium: indicates a possible opportunity for adaptation that might be difficult to include in the project but worth exploring.
- Low: lack of feasibility or relevance for the project reviewed; it might a project involving health organisations that are not leading stakeholders on climate change and not interested in building climate issues into their mandate and project activities such as HIV NGOs.

ADMINISTRATIVE APPENDICES

A. 1 Study Methodology/Work Plan

	WEEKS BEGINNING MONDAY X	Fe 16	Fe 23	Ma 2	Ma 9	Ma 16	Ma 23	Ma 30	Ap 6	Ap 13	Ap 20	Ap 27	Ma 4	Ma 11	Ma 18	Ma 25	Ju 1	Ju 8	Ju 15	Ju 29
STAGE AND ACTIVITY	**NOTES & ASSUMPTIONS WEEK**	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1. BRIEFING AND PLANNING																				
Understand process and key needs of EC stakeholders, exchange views	Meet with DG E6 / Env Integration Project / Steering Committee Review draft Plan, Schedule, contacts																			
1.2 Prepare, revise work plan and discuss methods																				
2. DESK STUDY																				
2.1 **Start-up** • Define study scope and review EC documents	Develop list of EC and study contacts. Discuss issues with relevant EC staff at country / regional level. Identify national UNFCCC focal points or other partner country climate informants.																			
2.2 **Set EU study in context** • Conduct quick literature review • Examine selected donor climate screen/assessment guidance • Learn lessons about portfolio screening from 2 / 3 donors • Discuss approach with stakeholders	Engage DFID / DANIDA if practicable. Obtain relevant support and review issues with researchers [Institute of Development Studies, International Institute for Environment and Development, Stockholm Environment Institute, International Institute for Sustainable Development]																			
2.3 **Develop, propose and agree programme screening methodology**	Develop overall conceptual frame, discuss risk and drivers of vulnerability. Discuss potential for integration of CC within SEAs. Review methods and practical aspects of screening budget support programmes. List resources and assess sources for climate and development issues data. Review institutional and capacity issues. Share proposed methodology with EC																			

	WEEKS BEGINNING MONDAY X	Fe 16	Fe 23	Ma 2	Ma 9	Ma 16	Ma 23	Ma 30	Ap 6	Ap 13	Ap 20	Ap 27	Ma 4	Ma 11	Ma 18	Ma 25	Ju 1	Ju 8	Ju 15	Ju 29
STAGE AND ACTIVITY	**NOTES & ASSUMPTIONS** **WEEK**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**
2.4 **Apply Programme Level Climate Risk Screening** • Screen projects, programmes & sector / budget support within 10 CSP / RIP/ M+NIPs • Select 5 CSPs where proportion of EC portfolio identified is under greater climate risk • Draw conclusions how far CSPs / NIPs / CEPs take CC into account	Based on monetary value of investment and categorisation of 9 CSPs / NIPs & 1 RIP. Identify any quality sources for climate profiles. Requires strategic overviews, some detailed data about EC portfolios and how donors are collaborating in the 10 countries. Considers within-sector variation in risks and Disaster Risk Reduction mainstreaming. Consider implications for indicators in SWAP/GBS performance assessment frameworks.																			
2.5 **Examine the provisional Project Climate Risk Screening procedure through applying it to 10 candidate initiatives**	Examine the Project Climate Change Screening tool developed for the Environmental Integration Handbook. Apply to ten initiatives within the 5 selected higher-risk countries. Requires communication with contact staff in-country/other national points.																			
2.6 Examine provisional **Project Climate Risk Assessment procedure** • Apply to ***x*** projects selected from 10 projects assessed "under greater climate risk" during Activity 2.5 • Iterate as required	This step selects a set of at-risk initiatives from 10 candidate projects (a subset of the 10 projects in selected 5 higher-risk countries). Required to refer to the Terms of Reference for climate risk assessment within EI Manual. Includes project effects directly or indirectly affecting vulnerability and adaptive capacity. Contribute to assessments of adaptation options and costs. Discuss potential for integration of CC within EIAs.																			
2.7 **Country and project selection** • Plan for country visits	Justify selection procedure of two countries / four projects Agree which are to be visited with Steering Committee To be based on multiple criteria (e.g. represent a range of climate change impacts issues, different funding modalities etc.)																			

	WEEKS BEGINNING MONDAY X	Fe 16	Fe 23	Ma 2	Ma 9	Ma 16	Ma 23	Ma 30	Ap 6	Ap 13	Ap 20	Ap 27	Ma 4	Ma 11	Ma 18	Ma 25	Ju 1	Ju 8	Ju 15	Ju 29
STAGE AND ACTIVITY	**NOTES & ASSUMPTIONS WEEK**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**
2.8 **Assess drivers of vulnerability and estimate "ball-park" proportion of each country portfolio at risk**	Should analyse underlying factors contributing to risk / exposure causing vulnerability to CC. For 9 CSPs/NIPs/MIPs + 1 RIP, based on monetary value of investment, numbers of projects categorised as appropriate.																			
2.9 **Develop recommendations for, understanding vulnerability, improving resilience and improving planning**	For 5 CSPs/NIPs; requires some local information and stakeholder interaction. Will be generic not highly specific.																			
3. INTERIM BRIEFING	20/21 April; Agree with Steering Committee which countries and projects are to be visited																			
4. FIELD VISITS / ASSESSMENTS																				
Visit two countries and validate methods	Outward ~ 4-6 May for 15 days																			
5. REPORTING																				
Draft the Final Report	4 hard copies & e-version by latest 29 May															>				
6. EC COMMENTS ON DRAFT	Within 4 weeks of draft submittal																<			
7. FINALISE REPORTS + DEBRIEFING & PRESENTATION																				
Review comments, finalise report	40 p exc. apps, 4 copies, e-version by 15 July																			>
Prepare Short Version & Presentation	Maximum 7 pages + glossary by 15 July																			>
Present key findings in Brussels	Heads of Units/Delegations/Ops - by 15 July																			>

A. 2 Consultants' Itinerary

DATE	ACTIVITY
	PHILIPPINES
6 Wed	Travel to Kuala Lumpur and then on to Manila
7 Thurs	Arrive Philippines
8 Fri	Meetings with Delegation (Head of Operations, Heath, MTF *etc*) and receipt of documents
9 Sat	Meetings with: TA to Dept for Environment and Natural Resources GTZ Philippines' Environmental Science for Social Change
10 Sun	Review of documents received
11 Mon	Meetings with Delegation (Operations, Heath, MTF, DRR) and receipt of documents Bureau of International Health Cooperation, Department of Health
12 Tues	Meetings with UNDP, UNEP, Foundation for Philippine Environment, KLIMA
13 Wed	Meetings with Delegation (methods testing) World Agroforestry
14 Thurs	Meeting with World Bank; depart to Singapore and then on to Papua New Guinea
	PAPUA NEW GUINEA
15 Fri	Arrive Papua New Guinea Meetings with Delegation (Head of Delegation, Rural Econ Devlpt, RWSS *etc)* NAO and receipt of documents
16 Sat	Field trip to view RWSS project
17 Sun	Review of documents received
18 Mon	Meetings with Remote Sensing Centre, UPNG, National Forest Service, Forest Authority
19 Tues	Meetings with Delegation (methods testing)
20 Wed	Meeting with Office of Climate Change (requested Friday) no response Meeting with National Agricultural Research Institute Depart PNG to Kuala Lumpur and then on to London
21 Thurs	Arrive UK

A. 3 List of (A) Documentation and (B) Web Sites Consulted

A. DOCUMENTATION CONSULTED

YEAR	AUTHOR (s)	TITLE
EC		
2003	EC	Climate Change in the Context of Development Cooperation - Communication from the Commission to the Council and The European Parliament [COM (2003)
2003	EC	Climate Change in the Context of Development Cooperation - Council Conclusions, Council of the European Union
2005	EC (Integration Project)	Environmental Integration in EC Development Co-operation Programming, Experiences in the Use of Country Environmental Profiles. Training and Manual
2009	EC	Programming Fiche For Mainstreaming Environment in Programming
2009	EC	Guidelines on the Integration of Environment and Climate Change in Development Cooperation (2009)
OTHER ORGANISATIONS		
2007	OECD	Stocktaking of Progress on Integrating Adaptation to Climate Change into Development Co-operation Activities
2008	OECD	Draft OECD Guidance on integrating climate change adaptation into development cooperation
2008	OECD	Development & Climate Change: Joint Agency Paper - Poverty & Climate Change: Reducing the Vulnerability of the Poor
2009	OECD	Economic Aspects of Adaptation to Climate Change: Costs, Benefits and Policy Instruments
2009	UNFCCC	Local coping strategies database
DEVELOPMENT RESEARCH AND CLIMATE SCIENCE		
2001"	IPCC	Third Assessment Report "*Climate Change 2001*"
2007	Adger, W.B., *et al*	Assessment of adaptation practices, options, constraints and capacity.
2007	Klein, R.J.T.*et al*	Portfolio screening to support the mainstreaming of adaptation to climate change into development assistance. Climate Change, 84:23-44
2008	Hedger M	Potential role, scope and activities of the GCCA: how to support delivery of adaptation and low carbon actions in poor and vulnerable countries
2006	Palerm J, Ledant JP, Brinn P	Environmental Integration in EC Development Co-operation Programming, Experiences in the Use of Country Environmental Profiles
2007	McGray. H *et al*	Weathering the storm. Options for framing adaptation and development. World Resources Institute.
2007	Mitchell, T. and Tanner, T	Embedding climate change adaptation in development processes. IDS In Focus Issue 02 Climate Change Adaptation
2008	Mitchell T and van Aalst M	Convergence of Disaster Risk Reduction and Climate Change Adaptation - DFID Review
2007	McGray, Hammill and Bradley	Types of Adaptation Supported by ODA and International Climate Funding Mechanisms.
2007	Nicholson S and Riesco IL	FERN, WWF, RSPB - Environmental tools in EC development cooperation Transparency and public availability of documentation - a review
2007	Parry M.L. *et al*	Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the IPCC, Univ. Press, Cambridge
2009	Peskett L *et al*	Climate change challenges for EU development co-operation: emerging issues
2006	Riesco I L, FERN	Court of Auditor's Report: The environmental aspects of the Commission's development co-operation
2007	van Aalst *et al*	Executive Summary. Poverty Reduction at Risk: managing the impacts of climate change on poverty alleviation activities
2008	Dougherty, B, and Fencl, A	UNEP Sourcebook Integrating Adaptation to Climate Change into UNEP Programming Stockholm Environment Institute – US Center / Tufts University
2009	WWF	Checking on environment mainstreaming - Guidelines for a Mid-Term Review of ENPI programming documents by civil society
2008	WWF, FERN, BirdLife	International Environmental tools in EC development cooperation - an analysis of country and regional environmental profiles
2007	Williams, R	Environmental Policy Integration in EC Development Cooperation, EPIGOV Conference on Mainstreaming Environmental Concerns in European Governance, 15
PAPUA NEW GUINEA		
1999	Nobuo Mimura	Distribution of Vulnerability & Adaptation, Asia And Pacific Region Center for Water Env. Studies, Ibaraki Univ. 4-12-1 Nakanarusawa, Hitachi, Ibaraki 316-8511 Japan
2000	UNFCCC	Papua New Guinea Initial National Communication
2000	World Bank	Cities, Seas, and Storms: Managing Change in Pacific Island Economies. Vol. I: Summary Report (draft). PNG & Pacific Islands Country Unit. World Bank. Wash D. C.
2001	UNITED NATIONS	Papua New Guinea Common Country Assessment The United Nations Country Team, Port Moresby, Papua New Guinea
2005	Kevin Conrad & Geoffrey Heal	A solution to climate change in the world's rainforests
2005	Taito Nakalevu, Pasha Carruthers, Brian Phillips,	Community-Level Adaptation to Climate Change: Action in the Pacific Proceedings of the Regional Workshop on Community-Level Adaptation to Climate Change, Suva, Fiji: 21-23 March 2005
2006	Melchior Mataki *et al*	Implementing Climate Change Adaptation in the Pacific Islands: Adapting to Present Climate Variability and Extreme Weather Events ,AIACC Working Paper No. 34
2007	Jones D and R Whitaker	AUSAID Project Pacific Islands – Climate Prediction Project (PI-CPP) *Pilot Project: Improving NMS Capacities in Media, Public Awareness & Communications – PNG*

YEAR	AUTHOR (s)	TITLE
		David Jones (Australian Bureau of Meteorology) and Richard Whitaker (Weathersmart Meteorological Services) Port Moresby, PNG, 21 -23 Nov 2007
2007	Jon Barnett	Food security and climate change in the South Pacific
2007	Marc Overmars	Pacific Partnership Initiative on Sustainable Water Management Bora Bora, French Polynesia, 13 November 2007 Pacific Islands Applied Geoscience Commission
2007	Mimura, N., L. *et al*	Small islands. *Climate change 2007: impacts, adaptation and vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the IPCC*
2007	University of NSW	Climate Change in the Torres Strait, Australia Summary of climate impacts
2007	WWF	Climate Change Impacts on APEC Countries
2008	EC	Rural Water Supply and Sanitation Programme: Financing Agreement (Phase II)
2008	EC	Rural Water Supply and Sanitation Programme: Grant Funding Applications
2008	EC	Rural Water Supply and Sanitation Programme: Guidelines for Grant Applications
2008	Italtrend Consortium	Rural Water Supply and Sanitation Programme: End of Term Evaluation
2008	Jimmie Rodgers	Climate change and health: a Pacific perspective Secretariat of the Pacific Community (SPC), BP D5 98848,Noumea Cedex, New Caledonia
2008	Greenpeace	Preserving Paradise: The value of protecting PNG's forests for climate
2008	Michael Somare	Prime Minister of PNG's Address To The Lowy Institute For International Policy Sydney, 7 Nov 2008
2008	The Messenger	Climate Change and Biodiversity in Melanesia Ka 'Elele, The Messenger, The Journal of Bishop Museum
2008	FAO	Climate Change and Food Security in Pacific Island Countries, Rome, 2008
2008	Secretariat OF The Pacific Community	Agenda item 3.2 - Climate change: contributions from SPC to regional and national adaptation initiatives 38th Meeting of the Committee of Representatives of Governments and Administrations
2008	University of PNG	The State of the Forests of PNG: Mapping the extent and condition of forest cover and measuring the drivers of forest change 1972 – 2002
2008	UPNG for Dept. Agriculture	Papua New Guinea: Resource Information System Handbook 3rd Edition
2009	Commonwealth Health Ministers' Update	Country Survey on Health and Climate Change
PHILIPPINES		
2005	Schiavo-Campo, S., Judd, M	The Mindanao Conflict in the Philippines: Roots, Costs, and Potential Peace Dividend
2005	Villarin J.R.T. *et al*	Mapping Philippine Vulnerability to Environmental Disasters. Center for Environmental Geomatics - Manila Observatory
2006	Allen KM	Community-based disaster preparedness and climate adaptation: local capacity-building in the Philippines Disasters
2007	EC Delegation and IBRD	Administration Agreement for Trust Funds to which the EC is the only Donor – the Mindanao Reconstruction and Development Programme
2007	Mei Wang	Loan Agreement Mindanao Rural Development Project Phase II - between Republic Philippines / IBRD
2007	Nicerio, M D	The Albay Declaration on Climate Change Adaptation. Submitted to the House of Representatives Senate of the Philippines and President of the Republic of the Philippine Office of the Governor, Environment and Eco-Cultural Tourism, Province of Albay
2008	Lasco RD *et al*	Mainstreaming Climate Change Adaptation In Developing Countries: The Case Of The Philippines. World Agroforestry Centre, Laguna, Philippines
2007	Nicerio, MD.	The Albay Declaration on Climate Change Adaptation. Submitted to the House of Representatives Senate of the Philippines and President of the Republic of the Philippine Office of the Governor, Environment and Eco-Cultural Tourism, Province of Albay
2007	World Bank	Project Information Document Philippines - Climate Change Adaptation Project
2008	Office of the Governor, Albay	Climate proofing Small Farmers in Albay. Centre for Initiatives and Research on Climate Adaptation (CIRCA) and World Agroforestry Centre
2008	Pulhin FB and Lasco RD	Climate change and biodiversity in the Philippines: potential impacts and adaptation strategies.
2008	Ticsay MV and Arboleda LP	Realising Challenges, Exploring Opportunities, Workshop on Biodiversity and Climate Change in Southeast Asia: Adaptation and Mitigation Southeast Asian Regional Center for Graduate Study and Research in Agriculture / Philippine-Netherlands Biodiversity Research Programme for Development in Mindanao
2008	World Bank	Annual Report 2007 - Mindanao Trust Fund Reconstruction and Development Program
2008	World Bank	Mindanao Rural Development Project - Phase 2
2009	Benson C	Mainstreaming disaster risk reduction into development: challenges and experience in the Philippines. ProVention Consortium Secretariat, Geneva, Switzerland
2009	Coenegrachts M *et al*	Mid Term Review of the EC-funded Health Sector Policy Support Programme. Conseil Sante Consortium
2009	Fyfe, A and EC Del Philippines	Monitoring Report MR-118121.01 Mindanao Trust Fund Reconstruction & Development Programme – Contribution Agreement with the World Bank.
2009	Manipon, A.J.N., Mesina SR	Communities, Conservation and the Filipino Environmentalist. Foundation for the Philippine Environment

WEB SITES CONSULTED

Name	Focus	Website
Advancing capacity to support Climate Change Adaptation	*Project management and knowledge web portal*	http://www.acccaproject.org/accca/?q=node/6
ADB Climate Change Programme Coordination Unit	*Regional bank climate change entry portal*	http://www.adb.org/Climate-Change/cc-adaptation.asp
AdaptNet	*Adaptation strategy sharing community*	http://gc.nautilus.org/gci/adaptnet http://www.global-cities.info
Adaptation Learning Mechanism - UNDP ALM	*Info portal and learning platform with country information - intended to provide data for project screening*	http://www.adaptationlearning.net/profiles http://www.adaptationlearning.net/resources/tools.php http://www.undp.org/climatechange/adapt/downloads/CC_RiskScreening_DRAFT.pdf
Assessments of Impacts & Adaptations to Climate Change - Multiple Regions/Sectors AIACC	*Research for development partnership*	http://www.aiaccproject.org/about/about.html 2007 Final Report is found here. http://www.aiaccproject.org/Final%20Reports/final_reports.html
BASIC project	*Strengthening institutional capacity programme for Brazil, China, India, South Africa - now turned by IDS into a network for knowledge services*	http://www.basic-project.net http://www.basic-project.net/results.htm
Climate Change Explorer	*Decision Making Explorer Climate scenario tool*	http://wikiadapt.org/index.php?title=Decision_Making_Explorer
Climate for Development in Africa - ClimDev	*African Climate Risk Management for development programme*	http://www.uneca.org/eca_programmes/sdd/events/climate/climdev.pdf http://www.wmo.ch/pages/prog/gcos/index.php?name=climdevafrica
CBA Adaptation Portal	*Community based Adaptation portal*	www.cba-exchange.org
Center For Hazards and Risk Research - Columbia University	*Disaster inventory project*	http://www.ldeo.columbia.edu/chrr/research/hotspots
Capacity Strengthening in LDCs for Adaptation To CC (CLACC)	*Adaptive capacity building community*	http://www.clacc.net/About%20CLACC/Team/International.html
Climate – Insight	*Consultant network*	http://www.climate-insight.com
Climate Change Adaptation in Africa – CCAA	*Web-based knowledge exchange hub for adaptation pilot projects*	http://www.idrc.ca/en/ev-94425-201-1-DO_TOPIC.html
CLIMADAPT	*Canada-based network*	http://www.climadapt.com/
Disaster Environment Working Group for Asia – DEWGA	*Asian Inventory of disaster & environment information*	www.dewga.org and http://www.sei.se/programmes/risk-livelihoods-a-vulnerability/projects/1472-m-disaster-environment-working-group-for-asia-dewga.html
DANIDA Toolkit	*Core document describing DANIDA's intentions as of 2005*	www.amg.um.dk/NR/rdonlyres/C559F2DF-6D43-4646-80ED-C47024062FBD/0/ClimateAndDevelopmentActionProgramme.pdf
DFID Climate Change Hub	*DFID funded initiative in response to Bangladesh call for setting-up an international climate change*	http://www.dfid.gov.uk/procurement/files/ojeuccd.asp
EC Global Climate Change Alliance (GCCA)	*Initiative to coordinate developing country adaptation and mitigation policy responses*	http://europa.eu/rapid/pressReleasesAction.do?reference=IP/07/1352 http://www.ids.ac.uk/go/idsproject/support-study-for-the-establishment-of-the-global-climate-change-alliance

Name	Focus	Website
Ecosystems and Livelihoods Adaptation Network – ELAN	*International network of resource managers, scientists and decision-makers*	http://cmsdata.iucn.org/downloads/elan_2_pager.doc
ELDIS resource centre	*Information Portal*	http://www.eldis.org/index.cfm?objectId=06B6B65C-F3FF-0FA5-22C491E78DDA01B1 http://www.eldis.org/go/country-profiles
GEF Assessment	*Country Capacity support programme*	http://ncsa.undp.org
Global Environmental Change and Food Systems GECAF	*International, interdisciplinary research project*	http://www.gecafs.org/about/index.html
Global Climate Change Adaptation Network for Africa (GCCAN)	*Network to bring together expertise and capacities*	Reported in http://carbon-based-ghg.blogspot.com/2009/04/adaptation-network-launching-in-africa.html
Global Climate Change Adaptation Centre	*Bangladesh proposal to host an international research into practice centre that serves Asia and beyond*	http://www.ddrn.dk/filer/forum/File/IARU_selected_abstracts_session_41.pdf
GTZ Climate Check	*Climate proofing and emissions saving -Country / project screening tools*	http://www.gtz.de/en/themen/umwelt-infrastruktur/24205.htm Literature at http://www.gtz.de/en/themen/umwelt-infrastruktur/24211.htm
Knowledge Network on Vulnerability and Adaptation to Climate Change		http://ncsp.va-network.org/
National Adaptation Plans programme for LDCs	*NAPA database*	http://www.napa-pana.org & http://www.napa-pana.org/private/modules/knowledgebox/external/index.php?kbid=6 http://unfccc.int/cooperation_support/least_developed_countries_portal/submitted_napas/items/4585.php
ORCHID: Opportunities and Risks from Climate Change and Disasters	*Technical approach to climate risk screening*	http://www.ids.ac.uk/go/research-teams/vulnerability-team/research-themes/climate-change/projects/orchid
Oxford University and UNDP Country profiles	*Country climate data profiles*	http://country-profiles.geog.ox.ac.uk
Maplecroft Climate Risk Indices	*Hydro-meteorological disasters and water scarcity GIS maps and country vulnerabilities data*	http://www.global-risks.com/climate_change/more_information http://www.global-risks.com/maps/interactive_map/hydrodis http://www.global-risks.com/maps/interactive_map/water/
Netherlands Climate Assistance Programme	*Country data for 18 locations*	http://www.nlcap.net
OECD Special Advice	*OECD Advisory Notes on Strategic Environmental Assessment for key emerging issues*	http://www.oecd.org/document/8/0,3343,en_2649_34421_42025864_1_1_1_1,00.html & Strategic Environmental Assessment (SEA) and Climate Change Adaptation
OECD Policy Guidance on Integrating Adaptation to Climate Change into Development Co-operation	*Policy Guidance*	http://www.oecd.org/document/5/0,3343,en_2649_34361_42471301_1_1_1_1,00.html http://www.oecd.org/dataoecd/11/55/42551540.pdf
Partnership for environment and disaster risk reduction	*Tools for Mainstreaming Disaster Risk Reduction*	http://www.preventionweb.net/english/professional/networks/private/environments http://www.proventionconsortium.org/?pageid=32&projectid=1
PRECIS	*Climate scenario tool*	http://precis.metoffice.com
SERVIR	*Climate scenario tool & information*	www.servir.net

Name	Focus	Website
	portal	
SENSA	*Monitoring the environmental situation in Southeast Asia*	http://www.sida.se/sida/jsp/sida.jsp?d=1382&a=25497&language=en_US
SEI-UNEP Collaborating Programme on Climate Adaptation	*Risks and Vulnerability programme*	http://www.sei.se/programmes/risk-livelihoods-a-vulnerability.html
UKCIP Adaptation Wizard	*Staged guidance based on climate risk management*	http://gc.nautilus.org/gci/adaptnet/reports/2009/adaptation-wizard http://www.ukcip.org.uk/index.php?Itemid=273&id=147&option=com_content&task=view
UNDP Tools UNDP global maps	*Sector impacts for programming*	http://www.undp.org/climatechange/adapt/program.html http://www.undp.org/climatechange/adapt/basics2.html
UNDP - Adaptation Policy	*Framework Guide*	http://www.undp.org/climatechange/adapt/apf.html
UNITAR Climate Change Programme	*Regional capacity building support*	http://www.unitar.org/ccp/
World Bank Climate Change Portal	*Information portal and project screening tool Country climate data profiles World Bank Climate Data Projection*	www.worldbank.org/climatechange http://sdwebx.worldbank.org/climateportal
World Resources Institute	*Profiles and adaptation practices database*	http://projects.wri.org/adaptation-database#country & http://earthtrends.wri.org/
UNFCCC	*Non-Annex I National Communications - National Reports*	http://unfccc.int/national_reports/non-annex_i_natcom/items/2979.php
USAID climate change manual	*Guidance manual*	www.usaid.gov/our_work/environment/climate
weADAPT	*Information portal and learning platform*	www.weadapt.org and http://www.weadapt.org/c02/#wikiADAPT_
UNEP GRID Vital Climate Graphics Africa		http://www.grida.no http://www.grida.no/publications/vg/africa/

A. 4 Curricula Vitae of the Consultants

Richard PAGETT

1. **Family name:** PAGETT
2. **First names:** Richard
3. **Date of birth:** 26 February 1953
4. **Nationality:** British
5. **Education:**

Institution [Date from - Date to]	Degree(s) or Diploma(s) obtained:
University of London 1975 - 1978	Ph.D. [*Ecology, Chemistry and Physiology*]
University of London 1972 - 1975	BSc (Hons.) Zoology, Upper Second

6. **Language skills:** Indicate competence on a scale of 1 to 5 (1 - excellent; 5 - basic)

Language	Reading	Speaking	Writing
English (mother tongue)	1	1	1
French	3 possibly 2	4 possibly 3	4
Russian	4	4	4
Arabic	5	4	5

7. **Membership of professional bodies:**

Institute of Environmental Management and Assessment:	*Registered Assessor*
Environmental Auditors Registration Association:	*Registered Environmental Auditor*
Chartered Institution of Water and Environmental Management:	*Chartered Scientist (CSci)*
	Chartered Environmentalist (CEnv)
Energy Institute:	*Member*
Institute of Biology:	*Chartered Biologist (CBiol)*
European Professional Biologists Association:	*EurProBiol*
Society for the Environment:	*Approved Auditor*
Science Council:	*Approved Auditor*

8. **Other skills:**

Computer Literacy:	*Office Suite (Word, Excel, PowerPoint, Publisher, Access, Front Page) HTML*
Technical Courses:	*University of Bradford (1988)*: *Flow and Water Quality Modelling*
	WS Atkins (1993): *Internal Quality Auditing*
	Det Norske Veritas (1997): *Certification of EMS*
Administration:	*Established two environmental divisions in corporate consultancies (1990 and 1992)*
	Established a renewable energy company (2007)
	Established a carbon offset scheme (2007)

9. **Present position:** Independent
10. **Years within the firm:** 29: Corporate (15) Independent (14)

11. **Key qualifications:**

- **BSc and PhD** in environmental management
- More than 25 years of **practical experience in management of environmental issues**, including institutional aspects, socio-economic aspects, international environmental policies and management, and environmental assessment techniques and many related issues
- Very extensive **Least Developed Countries and Small Island Developing States** experience
- Have led **several climate change assignments** including the design of three climate change advisory units for the ACP countries and two disaster preparedness studies (in Bangladesh and in Trinidad and Tobago)
- Fully familiar with **risk-based climate change** and delivered keynote address on this in Kuwait this year to oil and gas sector addressing adaptation and resilience
- Very **deep experience of EIA, ESIA, ESHIA** and associated environmental management plans, monitoring to various standards (World Bank/IFC Performance Standards, Equator Principles) etc for 20+ years and
- Provided three-year, due diligence pre and post implementation of a **Strategic Environmental Assessments** for the paper and pulp sector in Uruguay and recently concluded one-year, SEA for the tourism sector in Egypt
- Very familiar with **climate change mainstreaming and carbon management**; have established one of the most comprehensive carbon calculators in the UK, currently working with the Iraqi government on establishing a Clean Development Mechanism for northern Iraq forestry sector; several advisory assignments on climate change e.g. in Burkina Faso and Mauritania
- Have been involved in **all stages of EC PCM** including, project fiche development, drafting of ToRs, project formulation, financing proposals, monitoring and mid-term and post- project evaluation, Country Environmental Profiles, Country Strategy Papers, and Regional Environmental Profiles including specific experience of 7th, 8th, 9th and 10th EDF and various funding modalities (project and budget support, and variations; targeted, earmarked *etc*)
- **Multi-sectoral experience** e.g. central, regional and municipal governance, oil and gas, mining, tourism & recreation, water, waste, forestry & agriculture, harbours & marinas, road, rail, air & sea transportation, power, chemical, construction

Torsten Mark KOWAL

1. Family name: KOWAL
2. First names: Torsten Mark
3. Date of birth: 23 May 1962
4. Nationality: British
5. Education: Selection of courses attended (1988-2008)

Institution	Dates	Degree or diplomas obtained:
Faculty of Professional Studies, **Thames Valley University** (TVU), Reading, UK	Jan.- June 2006	*UK Association for Project Management APM* - Professional Membership Qualification - APMP
International & Rural Development Department (IRDD), **Reading Univ.**	Oct.- Nov. 2000	Diploma: Management Skills for Rural Development - Short Course
Tropical Agricultural Research and Training Centre (CATIE), Costa Rica [3]	6 wks 1998	Diploma: Agroforestry Systems Development and Transfer
Oxford Forestry Institute, Dept. of Plant Sciences, **University of Oxford**, UK	1987 -1988	MSc. Forestry in Relation to Land Use
School of Environmental Sciences / School of Dev. Studies (joint degree), **University East Anglia**, Norwich, UK.	1981 - 1984	B.Sc. Environmental Sciences 2:1 one third modules in Development Studies.
Henley College, Henley-on-Thames, Univ. of Cambridge Exam Syndicate	1978 –1980	A-levels: Mathematics, Physics, Chemistry - achieved grades B, A, A

6. Language Skills

Language	Reading	Speaking	Writing
English	1	1	1
Spanish	1	1	1
French	2	4	3
Portuguese	2	4	3

7. Membership of Professional Bodies:
Member of: UK *Association for Project Management* (APM) – by examination June 2006 No. R35749
- European Commission - registered expert in: (i) *Rural Development and Food Security* (ii) *Environment*
- International Society of Tropical Foresters • Royal Geographical Society
- Rural Development Forestry Network • International Forestry Association • Royal Forestry Society

8. Skills:
Cross - Cutting Skills:
Rural development and forestry policy: capacity-building, advocacy and civil-society strengthening; *Sustainable livelihoods & food security* • *Information management and dissemination; PCM:* project design, appraisal, implementation, monitoring and impact assessment; *Best-practice research*: appraisal of case-study methods, tools and technologies*; Partnership and collaboration:* development of partnerships, networks and joint programmes; *Lesson-learning for stakeholders* through training & policy development; piloting and mainstreaming; *Training and extension*: methodologies; needs assessment, training of trainers; extension materials.
Personal Skills:
Stakeholder awareness: easy rapport with stakeholders at all levels, sensitive to their perspectives; *Interpretation skills*: analytical and pragmatic, capable when working with complex issues; *Team management:* robust leadership, team-building, goal-setting and staff coaching; *Interpersonal, presentation and communication skills*: skilled facilitator of meetings and training events *Influencing / briefing skills*: competent when motivating colleagues and advising senior managers; *Report preparation*: author of effective documents in English and Spanish; *Computer literate*: capable with spreadsheet, word-processing and project management software.

Present Position: Product Manager at Climate Insight working on climate change adaptation assignments.

10. Years within the firm: 1 year

11. Key Qualifications: an **environmental scientist, climate-adaptation specialist and tropical forester**:
Climate change impacts, vulnerability and adaptation: assessment, capacity-building and actions; Management of watersheds, water-resource policy and institutional development; Participatory forest management; Silviculture and certification of plantations and natural forests; Conservation and management of protected areas, biodiversity and forest genetic resources; Agroforestry systems diagnosis, design and development - sustainable agricultural development;

A. 5 Terms of Reference Summary

Specific Terms of Reference for a "Pilot study of climate change screening of the EC's development co-operation portfolio"

FWC Commission 2007 - Lot N° 4

Request for offer N° 2008/170463

1. Background
The Intergovernmental Panel on Climate Change (IPCC) provided the international community with three important conclusions: firstly, climate change is happening; secondly, the recent acceleration in climate change is the result of human activity; and thirdly, most regions in the world, and especially those in the developing world, will be increasingly affected by climate change.

The European Union (EU) has taken a leadership role in promoting international action to tackle climate change. The EU, as the largest provider of Official Development Assistance (ODA), has also taken a lead role in international development efforts, as reflected in the "European Consensus", in ambitious ODA commitments and in the promotion of aid effectiveness and coherence. Although the EU already highlighted the strong links between climate change and poverty in 2003, the urgency and magnitude of the challenge calls for a more systematic initiative to match Europe's responsibility and commitment in the fight against poverty.

Projections of the effects of climate change show that the Least Developed Countries (LDCs) and Small Island Developing States (SIDS) will be hit earliest and hardest. Moreover, these countries have the fewest resources to prepare for these alterations and to adapt their way of life. Climate change is therefore likely to further delay the achievement of the Millennium Development Goals (MDGs) in these and many other developing countries.

Several practical tools and approaches have been identified with the aim of contributing to the continuing effectiveness of the development co-operation portfolio in the context of climate change challenges. These tools now need to be tested in practice in a pilot study for a range of countries and conditions

2. Description of the assignment

Global Objective: Contribute to the improvement of the implementation of the EC's external policy on climate change through a better integration of climate change aspects in EC's development assistance.

Specific Objective: A first objective of this study is to estimate the part of the EC's aid portfolio which is potentially at risk due to climate change. A second objective is to further develop and test tools and approaches responding to the challenges of climate change on development co-operation to ensure continuing effectiveness.

Specifically this includes developing and testing a process to screen EC interventions for:

- Their likely vulnerability to climate change impacts;
- Their potential direct and indirect consequences on the capacity to adapt to climate change or climate change mitigation potential of a sector/country.

The analysis will also provide recommendations to effectively respond to climate change challenges in development co-operation.

Required services and output: The study will deliver the following results:

At programming level:

For 10 selected Country Strategy Papers / National Indicative Programmes/Multiannual Indicative programmes 2007-2013, an evaluation of what percentage of the EC's portfolio is at risk of the possible effects of climate change. As part of the same exercise, an evaluation will be carried out in order to check in how far the CSP/NIP/MIP's have taken this CC risks into account (Desk study).

Recommendations will be formulated on how climate change resilience can best be introduced or improved in the CSPs/NIPs/MIPs in 5 out of the 10 countries evaluated in point 1. These recommendations should ensure that the degree of climate change integration measures proposed is consistent with the expected climate change effects for the country (Desk study).

At implementation level:

The results of applying the "Provisional Project Climate Change Screening" (see Annex 1) procedure to 2 selected ongoing or planned climate sensitive projects in each of the 5 countries will be reported. For those projects identified as climate sensitive, a general assessment based on the "Provisional Climate Change Assessment" procedure (see Annex 2) will also be undertaken. This procedure will provide information on possible adaptation options and their costs (Desk study) (NOTE: The consultants will receive the final version of annex 1 and 2 prior to the start of the study*.

For a sub-set of 4 selected projects (2 in country A and 2 in country B) a more detailed assessment including country visits will be undertaken. These country-based detailed assessments will be used to validate and improve the general assessment and provide more comprehensive information on adaptation options and costs (As country to be visited have still to be determined budget should foresee enough financial resources for travel costs).

The study will provide comprehensive information on the advantages and limitations of the procedures, approaches and tools used in order to learn lessons for wider application.

The study will provide materials suitable for case studies that illustrate the application of the tools and approaches that can be used to further promote the concepts.

** Annex 2 was later withdrawn just prior to the country visits*

SHORT VERSION (+ GLOSSARY)

BACKGROUND AND AIMS

1. The European Union (EU) has taken a leadership role in promoting international action to tackle climate change (CC). The EU, as the largest provider of Official Development Assistance (ODA), has also taken a lead role in international development efforts, as reflected in the "*European Consensus*", in ambitious ODA commitments and in the promotion of aid effectiveness and coherence. The EU has already highlighted the strong links between CC and poverty, and the urgency and magnitude of the challenge calls for a more systematic initiative to match responsibility and commitment in the fight against poverty.

2. Methods being developed by the EC aim to assist continuing effectiveness of country cooperation portfolio under an altering climate. The Study aims to test these for some countries and conditions and to provide information on advantages and limitations. In this report, **Portfolio** refers to the Country Strategy Paper (CSP) group of programmes, projects and other support and **Initiative** refers to any single intervention: programme, project, sector budget support, general budget support or any combination.

3. There were three aspects to the work at **Programme Level**.

- § For nine selected Country Strategy Papers (CSP) and National Indicative Programmes (NIP), Multiannual Indicative Programmes (MIP), and one Regional Strategy Paper (RSP) and Regional Indicative Programme (RIP) an evaluation was to be undertaken to indicate the percentage of the EC's portfolio that could be at risk from climate change;
- § An evaluation was to be undertaken carried out in order to check in how far any given CSP, NIP, MIP or RIP had taken CC risks into account; and,
- § Recommendations were to be formulated on how CC resilience could best be introduced or improved in the CSP, NIP and MIP in five of the nine countries and region.

4. At **Project Level**, the Study was to apply the provisional *Project Climate Change Risk Screening* procedure to two selected, ongoing or planned climate-sensitive projects in each of the five countries identified previously. For projects identified as climate sensitive, to which the *Screening* had been applied, a more detailed assessment based on the provisional *Project Climate Change Risk Assessment* procedure would then be applied.

5. For **Validation**, a sub-set of four selected projects (two in each country, selected from the five countries identified above) were to be used during the two country visits (the Philippines and Papua New Guinea). These country-based assessments were designed to validate and improve the general assessment and to provide more comprehensive information on adaptation options and costs where possible.

SCREENING FOR CLIMATE CHANGE RISK

6. Climate risk screening is just one element within wider efforts to undertake CC mainstreaming. Screening for, and integration of, CC issues at programme-level needs to determine at least:

- § Relative overall level of "country vulnerability" to climate-change hazards;
- § Availability of National Communication to the United Nations Framework Convention on Climate Change, preparation of National Adaptation Programmes of Action - type documents;
- § Advance and degree of effort shown by partner government national adaptation planning;
- § Consistency, validity, accessibility and usefulness of local, national, regional and international sources of country climate change;
- § In-country technical and scientific capacities and political/social awareness of CC; and,
- § Potential donor activity areas and entry points for adaptation in the CSP.

PROGRAMME LEVEL CLIMATE RISK SCREENING

7. The task at programme level was to screen ten cases of development portfolios detailed in nine CSPs and one RSP and to identify five CSPs and RSP where a higher proportion of the EC portfolio appeared to be under greater climate risk. Through an iterative process the Programme Level Screening Method was developed and codified in the *Screening and Assessment in Climate Change Risk Evaluation.* The evaluation was based on a set of equations that generate an approximate *Country CC Risk Factor*. This value was then combined with the assessed value of the proportion of the whole CSP funds allocated that is deemed under higher climate risk. The proportion of the whole CSP budget was analysed on worksheets that apply a series of filters such as the location of each CSP initiative in climate-exposed sectors, and Yes/No responses to four key screening questions, supported by justifying text.

8. The *Climate Shift* value combines climate changes and meteorological hazards using data from the World Bank Climate Change Portal. This is the only easily-available source with systematic country-level projections, covering the same selected climate variables, using a consistent methodology. This part of the Study has assumed that: (i) a Climate Shift value represents the combination of the probability of climate-related events with the estimated likelihood of those hazards (ii) that the Climate Shift value deals with altered magnitude/likelihood of discrete, extreme meteorological events and longer-term issues; trends in predictability of seasonal events, altered events intensity, shifts in agro-ecological zones and altered organism-specific 'climate envelopes'.

9. According to risk theory set out in IPCC (2001)[29] climate risk is a function of the exposure, character, magnitude, and rate of CC (and variation) to which a system is exposed - multiplied by the system's vulnerability. Vulnerability is a function of a system's sensitivity, its degree of exposure, which is then divided by the system's adaptive capacity. Here this is determined from widely-available national indicators that are combined to make up a value for the '*Vulnerability Element*'. These concepts are expressed in the following risk equation (Equation 1):

Equation 1

COUNTRY RISK FACTOR =	***CLIMATE SHIFT*** Composed from World Bank data				***VULNERABILITY ELEMENT*** Composed from national proxy indices
	Overall likelihood of climate/weather events/trends	**X**	**Overall magnitude of events/trends**	**X**	**Receptor - Sensitivity X Exposure** / **Coping Response + Adaptive Capacity**

10. Each country was considered to be a 'system': a single risk receptor. The country *Vulnerability Element* generated then has to include measures of *country sensitivity* and *exposure* to the Climate Shift. Country sensitivity multiplied by country exposure is then divided by a proxy measure of national adaptive capacity, to derive the Vulnerability Element.

11. To develop the Vulnerability Element various proxies were selected: **Sensitivity** is related to *Governance/Absence of Political Violence and Food Security/Undernourishment* **Exposure** (Geographical) is a simple measure based on the existence of specific types of geo-climatic areas present in the country - note that this neither assesses the areal coverage of the higher-risk geo-climates, nor represents their proportion versus the surface of the country **Adaptive Capacity** is represented by the *Human Development Index*. Using these proxies to represent sensitivity, exposure and adaptive capacity the following may be set out (Equation 2):

[29] IPCC Third Assessment Report "*Climate Change 2001*"

Equation 2

Country Vulnerability to Climate Risks =	**Country area – presence of geo-climatic risk*** * *neither assesses the areal coverage of the higher-risk geo-climates, nor represents their proportion versus the surface of the country*	**X**	**Aggregate of Governance & Absence of Violence Indices + the Food Security/Undernourishment Index** ——— **Human Development Index**

12. Multiplying the *Climate Shift* with the *Country Vulnerability Factor* generates the *Country CC Risk Factor* (Equation 3).

Equation 3

Country CC Risk Factor	**=**	**Climate Shift** (developed from World Bank Climate Portal data)	**X**	**Country Vulnerability to Climate Risks**

13. Other proxies could have been selected for sensitivity, exposure and capacity, and other methods chosen to derive projected climate change. Of the nine CSPs and the one RSP, the following CSPs were deemed to have somewhat more CC risk than the others: Egypt, Ethiopia, India, Mali and Papua New Guinea (Table 1).

TABLE 1
SUMMARY OF 'PORTFOLIO-AT-RISK SCREENING' - COMBINATION OF THE DETAILED EXAMINATION OF EACH INITIATIVE WITHIN THE CSP, WITH THE COUNTRY RISK FACTORS

DATA TYPE	Brazil	Egypt	Ethiopia	Guyana	India	Mali	Papua New Guinea	Philippines	Swaziland	Central America
Country Vulnerability to Climate Risk Factor *Note: this does not account for climate shift*	0.15	0.18	0.61	0.17	0.40	0.17	0.41	0.32	0.21	0.13
Country Risk Factor *Note: this includes an adjustment for projected degree of climate change, approximated by the Climate Shift parameter*	**0.70**	**0.76**	**1.59**	**0.71**	**2.19**	**0.93**	**0.58**	**0.50**	**0.50**	**0.74**
CSP % Portfolio-at-Risk - filtered by sector and by the four 'key questions' - derived from the Project and Sector Analysis Sheet	30	61	61	35	42	70	53	0	79	0
"CSP % Portfolio-at-Risk" - Country Risk Factor Adjusted	**21.0**	**46.4**	**96.6**	**24.6**	**92.5**	**64.6**	**30.7**	**0.0**	**39.7**	**0.0**

14. Note that the calculation for exposure adds a risk factor if (i) the country is classified as a Least Developed Country and (ii) it is an island. The above, though, "penalises" smaller countries (*e.g.* Mali) that may have fewer geo-climes, yet are less able to respond to CC generally (than say India which has more geo-climes). A more refined approach, though one that would inevitably have required engaging with GIS, would require in-depth country data or use of proxies for population exposed. Exposure could also be related to historical disaster vulnerability, an approach not explored here. In addition, it should be emphasised that the results are country-dependent, and therefore cannot simply be extrapolated to assess the exposure of the whole EC portfolio.

MAINSTREAMING CLIMATE CHANGE INTO COUNTRY PROGRAMMING

15. Far-reaching and growing implications of CC and variability indicate that serious attention needs to be paid to how weather hazards, changed climates and CC trends will increase the level of risk to which EC development could be exposed. Those involved in EC country programmes must properly appraise the implications of an altering climate for partner governments/countries, for projects and for the delivery of their aid. This process of appraisal and subsequent aid delivery planning, when carried out systematically for existing and planned programmes, is termed "*mainstreaming*" – defined in the *Environmental Integration Handbook* (EIH)[30] as: "*...the process of systematically integrating a selected value/idea/theme into all domains of EC development co-operation to promote specific...and general development outcomes*".

16. The CSP is the key planning instruments used by the EC for programmes of assistance at country level. Guided by both the objectives of the partner country and of the donor, the CSP governs the development co-operation goals, specific areas of intervention, the volume of resources to be committed and the aid delivery methods. Environmental aspects to be taken into account in the planning process are analysed in standard Country Environment Profiles (CEP). The role of the CEP is crucial in assessing also the level of partner CC preparedness, the current state of understanding of CC and for providing an analysis of Climate Variability (CV) issues. Recognising the existing guidance planned for the next Handbook and the need to be practical it is proposed that a dedicated CC section in future CEPs should be developed. A proposed contents page is suggested (Figure 1). Until a new CEP is developed, the Mid Term Review would be the main option to introduce some of the issues.

Figure 1: **Proposed contents for a CC section in the CEP**

1. **Country climate change and variability situation** - current impacts and those projected over time - state of science and national-level understanding of the issues. Assessed information and analyses of expected effects (by sector and by geographical scale - regional, sub-regional, national, provincial and local)
2. **Observed climate change links to poverty and ecosystems** – trends, pressures and exacerbating causes – identified drivers of human/ecological vulnerability to CV - overall estimate of 'vulnerability factors'
3. **Partner capacity to respond to the consequences -** climate resilient development strategies and processes in place, or under development. In-depth and accurate analysis of partners' existing and planned efforts to address climate-related issues, in their technical, legal and institutional components
4. Overview of EC and other donors' **relevant current and planned CC-related activities** - by sector
5. Potential for **Low Carbon Development Strategies**
6. **Implications for EC programming -** potential CV adaptation outcomes and any new focal areas of cooperation, guidelines or criteria for mainstreaming adaptation in co-operation areas and sector/budget support*

** It is clear, however, that due to the demand driven and complex nature of the EC Cooperation with third country partners, the EC activities will continue also in sectors and areas where the climate risk is considered very high, when deemed a priority by the recipient government. The methodology proposed here should enable the staff involved in the different stages of the programme cycle to inform better themselves of the risks involved and prepare their plans and budgets accordingly – thus reducing the overall risks to acceptable levels.*

30 "Training and Manual (methodological support) for Environmental Integration in Development Co-operation" project of the EC

CLIMATE CHANGE RESILIENCE-BUILDING IN THE CSPs AT RISK

17. The CSPs do not identify CC issues in elaborated and consistent ways. When CC is mentioned in most cases, it is referred to as a mitigation concern, even when serious projected impacts are apparently recognised. The CEPs do explain partner adherence to international conventions such as UNFCCC, though do not usually cover projected impacts in sufficient detail for programming purposes reflecting the limited request for inclusion of CC issues in earlier versions of the Terms of References (ToRs) of CEPs.

18. A checklist (Table 2) has been developed that fits all the five countries and provides suggestions for solving these typical difficulties. The "In-Country Abilities" list builds upon a Department for International Development (DFID) field visit report to Indonesia, and was further elaborated from development research literature and Study Team observations during country-visits. It could, to varying degrees, apply to most countries.

Table 2 Checklist of aspects to be covered in a more climate-change-resilient CSP

IN-COUNTRY ABILITY	TYPICAL COUNTRY CHALLENGES	RECOMMENDATION
Political mandate and institutional frameworks	- Weak political engagement of elected agents at all levels of government - Confusion between adaptation and mitigation impeding communication - Poorly set up "Climate Change Office" with no legal framework or agreed coordination role or work plan - Vertical and sectoral push from the top poorly matched with bottom-up approach to integrate climate into development	+ CC participatory SWOT (strengths, weaknesses, opportunities and threats) analysis towards generating clear, accepted and strong mandates + Climate change awareness and education programmes that develop climate change understandings and efforts beyond mitigation focus targeted at parliaments, senates, congresses and other bodies, down to municipal level
Engagement by development planning authorities	- Unclear definition of roles and responsibilities between the climate change coordinating office and other ministries? - Partial isolation of CC from DRR and national development policy setting processes?	+ Identify current arrangements with government agency for CC and indicate the problems to be tackled + Support the generation of an institutional design that is transparent and accepted across key Ministries
Climate resilient national development plans such as poverty reduction	- Grasp of the relationships between CV with MDGs, poverty reduction, ecosystem conservation and environmental management - Extent to which climate change is already (or envisaged to be) mainstreamed as a national priority	+ Assess the organisations involved in the 2nd UNFCCC Communication for leadership and prepare plans to support partner government needs
Climate resilient sectoral development strategies	- Status of current version Info about specific sectoral issues - Specific information about how climate changes could impact core government functions - Level of sharing of information and good practices specific to sectors	+ Describe relationships and propose options, with particular emphasis on the adaptation potential of different sectors + EC sector support to decentralised economic development to include specific measures for climate risk management capacity building across stakeholders
National development plan is translated into the budgetary process	- Becomes a critical indicator of practical action and distribution of resources to tackle adaptation sectorally and to lower tiers of government - Infighting between government bodies about the potential allocation of donor resources	+ Depending on the answer above, identify appropriate EC resource allocations and methods + Propose CC actions within Mid-Term Development Plans with allocated resources into national and provincial budgets
Mechanism to align any international adaptation finance into national budget	- Where current plans consider off-budget deployment of ODA sources and/or separation of ODA from UNFCCC sources, this implies a risk for uncoordinated development and CC action	+ Identify current arrangements and indicate necessary realignments

IN-COUNTRY ABILITY	TYPICAL COUNTRY CHALLENGES	RECOMMENDATION
Cross-departmental coordination	- Identify and agencies with mixed technical and institutional capacity - Legal basis for cross-sectoral coordination and transparency in front-man role of any delegated authority seeking to represent the interests of other Ministries before donor communities	+ SWOT analysis of CC agencies + Promote use of strategic environmental assessments that require participatory action research working cross-sectorally
Disaster Risk Reduction capacity	- Implementation of disaster risk reduction (DRR) mainstreaming programmes - Capacities of disaster risk management (DRM) actors to map hazards and better integrate climate change data into projections capabilities - Capacities of national DRM agencies to interact with climate change authorities and relevant bodies of science research (including geographical information, sociology of vulnerability and economics) - Involvement of DRM agencies and communities in CC adaptation policy formulation	+ Propose potential solutions that bring together national CC and DRM actors, with international collaborators + Develop practical partnerships between DRM and CRM communities on specific regional or sectoral issues of mutual interest + Involve DRM researchers and practitioners in 2nd UNFCCC Communications + Promotes analysis of knowledge management issues and overlaps between adaptation and DRR with CC and DRM communities and policymakers
Local government	- Definition of the role of local government - No policy framework mandated or sector ministry encouragement	+ Improve extent of decentralisation and encourage development of capacities to address local sustainability issues + Develop and promote local government performance assessment frameworks that include Adaption to Climate Change and Disasters as a key indicator
Civil society	- Extent of informed civil society – both in terms of political and developmental dimensions - Poor development non-governmental organisations (NGO) abilities to analyse climate change implications	+ Improved civil society engagement via climate change awareness and education programmes + Promote climate risk management by obtaining involvement (beyond environmental NGOs and organisations specialised in disaster management), to cover organisations dealing with development and poverty reduction, so they begin to know how to address it.
Private sector	- Degree of parties being informed - Perception that climate change is an environmental issue	+ Identify key private sector stakeholders and engage in awareness-raising. Discuss and isolate key vulnerabilities. + Vigorously promote the wider framing of CC impacts as a potential business risk, even affecting business continuity in disasters
Policy implications of CC for development	- Poor policy analysis capacities across all stakeholders - Unanalysed implications by stakeholders in climate exposed sectors	+ Identify current arrangements and indicate necessary strengthening + Encourage province level scoping studies and sector studies + Use SEAs to identify key policy CRM and DRM weaknesses at sectoral levels
Information on climate change and impacts	- Limited national capabilities in downscaling global circulation models (GCMs) - Poor quality of data on observed climate - Limited capacities of national meteorological services – in data analysis and interpretation and in practical connection of forecasts with end-users (such as farmers for seasonal forecasts) - Extent and depth of available sources - Quality of dissemination of scientific information - Level of transparency and cultures of communication	+ Improve availability of coherent information beyond 1st UNFCCC Communication. + In EC-funded projects, promote partnerships between national and international scientists + Develop EC-funded technically orientated projects that develop the capabilities of regional and national meteorological agencies + Encourage learning projects that break new ground by connecting forecasting communities with natural resource managers (for example with farmers transmitting rainy season forecasts by radio) and for municipal civil contingencies responses (i.e. mobile phone flood alerts)

19. General Budget Support (GBS) is accompanied by policy dialogues with the beneficiary government, and so could focus on addressing cross-cutting issues relevant to adaptation to climate change. However, GBS is usually explicitly untied to specific programmes meaning that attributing use of funds to outcomes is virtually impossible. This may be an insuperable obstacle to efforts to assess what proportion of a specific donor's GBS funding is under some degree of fiduciary climate-related investment risk. During Sector Policy Support Programme (SPSP) formulation and implementation, dialogues between donor and partner entities usually deal with the roles of sector stakeholders in greater depth (their capacities, awareness, partnerships) and lead to agreement on performance assessment frameworks. Therefore, when compared with GBS, sector budget support is more likely to allow for specific CC impacts assessments and design of adaptation measures.

20. Inclusion of adaptation in GBS mechanisms through policy dialogues with officials in key ministries, such as Planning/Finance (not just the Environment Ministry alone) could raise the attention of partner governments to CC risks, in an equivalent of the Green Diplomacy process. However, to make use of GBS or programme-based approaches to support national or sector, issues to be addressed include ensuring that integration of adaptation policies into poverty reduction strategies and development planning is authentically country-driven, using a participatory approach to policy dialogues that includes non-state actors, and developing assessment frameworks for monitoring and evaluation.

21. The provisional *Project Climate Change Risk Screening* procedure was to be applied to two selected ongoing or planned climate sensitive projects in each of the five countries identified as being at risk by the procedure developed in this Study (Egypt, Ethiopia, India, Mali and Papua New Guinea). The general purpose was to assess how well a simple review of the CEP, CSP and related NIP or MIP could identify potential CC risk by validating the original conclusions with information gained from the delegations direct. The provisional *Project Climate Change Risk Screening* procedure was itself evaluated during the project screening to identify any generic improvements that could be applied to the procedure ~ a revised one was proposed.

22. The four key questions used in the revised *Project Climate Change Risk Screening*, and in the CSP *Screening and Assessment in Climate Change Risk Evaluation* were validated. The crucial issue of the "timescale of concern" was handled by developing two distinct questions:

    - Firstly, **project effectiveness and impact** is covered by the question "*At the end of the project implementation period, are the projected impacts of climate change, variability or extreme weather likely to affect the delivery of continued project benefits, during the subsequent ten-year period?"*;

    - Secondly, **project efficiency** is approached by asking "*During the project lifecycle, is it likely that expected impacts of extreme weather events and climate change, could affect the project's activities, results and outputs?"* Answering the first question is more likely to require climate projections information, while the second question in most cases, simply involves assessing current vulnerability under the effects of greater climate variability (without necessarily implying definitive shifts into new climate regimes). Ten years appears to be a consensus time limit within which some donor responsibility could be argued, for fiduciary-type climate risks; and,

    - It is important to note that the **project effectiveness and impact** requires information on the medium-term impacts of CC on the assets and livelihoods of final beneficiaries, while the project **efficiency** question is only about climate-related risks to the project as a time-limited entity.

23 A draft questionnaire for screening the climate risk of projects was tested in the five countries (Egypt, Ethiopia, India, Mali and Papua New Guinea) whose CSPs were deemed more at risk. To enable the application of the screening tool, A *Request for Information* derived from the draft questionnaire was formulated and sent to the EC Delegations in each of the five countries, together with the developed procedure. The questions asked (after Klein 2007[31]) were consistent with the draft climate risk screening questionnaire, and incorporated some specific improvements developed during this Study. In particular, the underlying determinants of risk as defined in the climate risk screening questionnaire were covered: the exposure of the project activities to climate variability and risk; the potential impact of project design

[31] Klein, R J T *et al* (2007) Portfolio screening to support the mainstreaming of adaptation to climate change into development assistance. Climate Change, 84:23-44

on the ability to respond to climate risk; the degree to which project partners already respond to climate risk; and the broader context in which the project activities would be situated (e.g. existing initiatives that could increase/decrease vulnerability *etc*).

24 During the application of the Approach to calculate % Portfolio-at-Risk, certain judgements were made using the CEP, CSP and related NIP or MIP concerning a given initiative described in the CSP. On that basis assumptions were made on the degree of climate risk and how CC or CV might affect that initiative. A validation of the initial assessment was done using the Delegation's knowledge, either captured as a result of the *Request for Information* or, in the case of the Philippines and Papua New Guinea through direct interview and discussions.

25 During the country visits to the Philippines and Papua New Guinea, the Study Team worked with representatives of the two Delegations to complete the information. The draft questionnaire for project's *Climate Change Risk Screening* has been thoroughly assessed. The Study Team concluded that, based on the testing of the four questions, the *Climate Change Risk Screening* would be useful at the end of identification, and then to guide questions to ask during formulation. Despite its usefulness, the procedure could be significantly improved, for instance using the country-tested questions, and formulating the questions in a clearer manner. A further finding is that some of the original questions need to be split into constituent parts to more accurately capture the situation. Following further pilot testing, Delegations could feasibly apply it during the project cycle.

26 Table 3 indicates some highlights of the key results for screening

27 The ToR calls for those projects identified as climate sensitive, to be general assessed based on the provisional *Project Climate Change Risk Assessment* procedure. The purpose of the procedure was to provide information on possible adaptation options and their costs. This Study has determined that the bulk of the country-relevant and higher-scale information required in this version of the in-depth assessment is inappropriately required, for what are local assessments of project feasibility under climate change. It is determined that the correct setting for efforts to generate higher-level information is at early levels of EC programming (e.g. CEP development). Comments were made on a *ToR for the Comprehensive Assessment of the High-Risk Climate Change Project* and an "enhanced" ToR of Environmental Impact Assessment (EIA); *Terms of Reference for an Environmental Impact Assessment*.

Table 3 Summaries of Country Initiatives At-Risk

COUNTRY	CSP INITIATIVES AT SOME CLIMATE RISK	REASONING WHY INITIATIVES DEEMED UNDER SOME CLIMATE RISK
Egypt	**Support to Rural Development**	Rural areas in Egypt will be highly affected by CC consequences (sea level rise, higher temperatures, less water) as well as CV and extreme weather events. The assets and livelihoods of communities settled on river flood plains and in the Nile Delta are under very high risk of climate impacts. Farmers will be deeply affected if an extreme event occurs during the initiative's implementation, as with droughts for instance. However, the initiative is not likely to worsen risks; rather it is likely to be planned to reduce vulnerabilities by promoting innovative sustainable practices. Potential does exist to add in adaptation capacity and resilience building elements.
	Targeted support for sector reforms- Transport	CC impacts on infrastructure are expected within quite short time frames, though the final beneficiaries are not - by their nature - sensitive to climate impacts. Promotion of energy efficiency and new and renewable energy sources is likely to supply adaptation/mitigation synergies if the initiative is assessed in-depth. Building capacities and improving infrastructure design standards is likely to reduce the climate risk levels of new transport linkages and assets that are built. Potential does exist to add in adaptation capacity and resilience building elements within the broad cross-sector programme.
	Education Sector Policy Support Programme	If extreme events (droughts, flooding, and water-supply loss) do occur during the initiative's implementation, these may decrease school attendance. Longer term, sea level rise may endanger school infrastructures in the Nile Delta.
	HSPSP II-Health Sector Policy Support Programme II	This sector-level support has sufficient components located in exposed rural areas (health clinics) that may be affected by climate impacts: decrease of freshwater resources, of the quality of the water resources and of crop production if extreme weather as drought occurs. The programme has many beneficiaries located in exposed rural areas who use health clinics.
	ISWP (Improved water and waste water services programme)	The Nile Delta region in Egypt (the target of this programme) will be highly affected by CC (sea level rise, higher temperatures, less water): thus, this could easily affect the results of this programme. The project will improve water and wastewater institutions and agencies which are important components of building adaptation capacity.
Ethiopia	**Support to the productive safety nets programme of Ethiopia**	Typically rural development and infrastructure programmes are likely to be affected by CC impacts. However, the soil and water conservation activities are almost certainly designed to reduce disaster and climate risk vulnerabilities in rural areas. Rural feeder road rehabilitation is highly likely to improve social and economic resilience, for example through offering opportunities for rural business diversification. Programme is likely to enhance the sustainability of the livelihoods of beneficiaries, as this programme is planned with the central goal of reducing vulnerabilities and improving social safety nets and the connectedness of target communities within wider transport and commercial relations.
	Participatory forest management PFM Ethiopia	Typically forestry and biodiversity/rural development programmes are likely to be affected by CC impacts. However, these impacts will manifest on uncertain timescales, but eventually agro and biodiversity may be severely impacted and CC impacts may affect forest integrity. This initiative would likely have CC issues under careful monitoring.
	Second Sector Policy Support Programme in support of Ethiopia's Road Sector Dev. Programme	Infrastructure under Intervention Area 1 is likely to be under medium term risks from climate change.
	Protection Of Basic Services	Typically rural development programmes are likely to be affected by CC impacts.
	Environmental Cultural and Biological Heritage	As above, the biodiversity resources programmed for protection may come under climate impacts in the medium term.
Guyana	**DEVELOPMENT OF LAND USE PLANNING**	Much of Guyana's productive coastal areas is vulnerable to flooding and housing assets may be under risk.
	Sea Defence Sector Budget Support	In some time periods the infrastructure will be tested to limits of design tolerance, after infrastructure creation
India	**Health Sector Support**	Components located in exposed rural areas (health clinics) might be exposed to some climate impacts after implementation. However, real levels of exposure for this sector-level support will depend on if components like health clinics are located in exposed rural areas that could suffer climate impacts

COUNTRY	CSP INITIATIVES AT SOME CLIMATE RISK	REASONING WHY INITIATIVES DEEMED UNDER SOME CLIMATE RISK
	Programme India	during implementation. There is potential for the health burden requiring attention increases due to extreme events or uncontrolled disease spread.
Mali	**Desanclavement du nord delta du Niger,appui sect. Tranports**	Typically, rural development programmes are likely to be affected by CC impacts. This region has a historically very high vulnerability to famine. However, the initiatives are likely to be planned to reduce vulnerabilities.
	Contrat omd pour le mali - ppab 2	As a typical rural development initiative this could be affected by CC impacts.
Papua New Guinea	**Rural Economic Development**	The ability of partners and/or beneficiaries to participate would be due to physical changes due to CC e.g. landslides, flooding or droughts. Landslides could impede to travel, and this is already a significant issue that affects current commerce. Droughts and flooding could reduce farm yields and rural incomes. Infrastructure is under potential risk in fragile highland regions. Real exposure depends on standards and siting, design and construction control of the infrastructure. Agriculture, fisheries and forests are nominally exposed to CC but the risk itself depends on the nature of the interventions. Assumption s are that District level planners are able to understand the importance of disaster risk mitigation and how CC could affect settlement patterns, human health and opportunities for crops and the sustainability of livelihoods activities. In-depth training in DRR and CRM is likely to provide significant benefits in terms of problem analysis in grant applications and climate/disaster risk management during subsequent initiative implementation. Hazard mapping at District level would help ensure that investments were located in less exposed settings. Farm diversification, increased assets and improved local processing will mean that the livelihoods of beneficiaries become more resilient. The better integration of communities with markets is likely to lead to greater ability of rural communities to respond to opportunities opened by climate change, such as the ability to grow different crops due to the warming of what have been cool elevations.
Swaziland	**Human Development (Health and Education Sectors)**	Components located in exposed rural areas such as health clinics) might be exposed to some climate impacts after implementation. Health impacts due to CC and disasters depend on details of the project beneficiaries and exposures of related assets.
	Water supply, sanitation, irrigation	Water supply and sanitations components that are located in exposed rural areas are highly likely to be exposed to some climate impacts during and after project implementation. Again depends on details of the project beneficiaries and exposures of related assets. Irrigation and the introduction of new crops are activities that are sensitive to climate change.

CONCLUSIONS AND RECOMMENDATIONS

Advantages, Lessons Learned and Limitations of CSP Screening Approach

28 The *Screening and Assessment in Climate Change Risk Evaluation approach* indicates that (even accounting for assumptions and the caveats) proxies for exposure, sensitivity and adaptation capacity could be assembled to provide an overall relative (not absolute) measure of CSP portfolio under climate risk. The Approach highlights the significant elements and how they jointly constitute vulnerability. While this attempt to compare vulnerability across countries and derive a value for the exposure of CSPs to climate risk is unlikely to be fully robust statistically, the need for efforts by large international donors such as the EC to assess climate risks at the country-level is clear.

29 CSP portfolio screening for decision-making, or to develop CSP resilience options, is best carried with in-country studies, in order to allow for a reality check on the ground. Information available remotely was only moderately sufficient to reach an evidence-based assessment.

Recommendations

- § Continue to develop the Approach provided, updating with better-fit proxies and other refinements proposed, bearing in mind that choices of proxies and their weighting means that the results are comparative between countries, and relative, not absolute;
- § Consider in-depth, in-country, portfolio screening of two or three weeks duration for large aid CSP programmes, and for programmes with large numbers of initiatives under some climate risk;
- § Consider CSP programming to continue to, and improve, use of standard European Consensus terminology for naming the sectors identified during programming; and,
- § Improve integration of the climate risk and disaster management communities to improve the evidence bases for project formulators.

Evaluation of Climate Risk Coverage in CEPs and CSPs

30 Review and analysis of the CC-related content of the CSPs and NIPs showed that very few contained reference to CC as an issue of serious concern. In almost all CSP cases, CC, when mentioned, is referred to as a mitigation concern, even when serious projected impacts are apparently recognised. Of those analysed, only the CSP/CEPs for Swaziland, Ethiopia and Guyana covered climate risk issues at any depth in relation to sector selection, and the potential of climate risk affecting development processes. The CEPs do explain partner adherence to international conventions such as UNFCCC, though do not usually cover projected impacts in sufficient detail for programming purposes. The Study argues that a robust, dedicated section should be developed as a minimum, ensuring that improved CC content of the CEP makes a difference to CSP programming, relies on climate risk information being translated and made useful within the linked CSP. This could benefit from framing climate impacts and risk management not as 'just' an environmental issue, but as a cross-sector, cross-cutting theme with the capacity to affect the attainment of almost all the MDGs.

Recommendation

- § Greater emphasis on CC-related content in CEPs in accordance with the Study proposed Contents.

Synergies with GHG Mitigation Potentials

31 Identifying the potential for substantial synergies between CC mitigation (reductions in GHG emissions) and adaptation to CV requires specialist research effort. This first has to work out the areas of overlap between developing-country sectors that have mitigation potential with those sectors that are most vulnerable to CC impacts. In most cases, this first assessment would not select for sectors with the highest volumes of GHG emissions, such as transport, industry and energy production. The sectors that are highlighted as overlapping would be those where unsustainable use of environmental resources, usually within rural development, produces high volumes of GHG in activities which generate high levels of social and economic vulnerability. As reported in UNFCCC National Communications, GHG emissions from agriculture and livestock ranching may be significant. Options do exist to shift agricultural systems towards conservation practices such as cover cropping and agro-forestry that emit lower volumes of GHGs, and these could make substantial contributions to diversified stable livelihoods.

Recommendation

- Sector assessments, as proposed for inclusion in CEPs, should include low carbon development and review of cross-overs between mitigation and adaptation, as themes to be reported on both during exercises such as SEA and during preparation of initiatives at varying stages.

Climate Change Resilience-Building in the CSPs at Risk

32 Upcoming Mid-Term Reviews of CSPs would be good options to further develop climate risk into CSP programming otherwise integration will depend on the timing of new formulation rounds of country and regional strategy papers. Building resilience in programming relies on several other factors in the human resources dimension, such as training and boosting the role of champions, as well as intra-EU collaboration. Programming may consider stand-alone interventions for example those that improve the handling of CC information, or similar direct risk management initiatives that directly confront climate impacts. Information about the state of country understanding of CC and about maturity in adaptation policy/practice of partner governments and country stakeholders must be gathered through interviewing a wide range of informants and extensive document review. A key focus will be to gather evidence about useful entry points in each sector where aid and partner resources can be used for greatest benefit.

Recommendations

- Until a new CEP is developed, the Mid Term Review is recommended to be the main option to introduce more detailed treatment of CC in the CSP;
- The inclusion of climate risk management in CEPs and CSPs, should take into account regional UN and EC Action Plans for Disaster Risk Management (DRM) in disaster-prone regions, requiring scaling-up and integration of existing (EU/other donor) DRM programmes, with complementary climate adaptation initiatives supported by the EC or other donors; and,
- EC Delegation staff should identify the networks, organisations, and individuals preparing UNFCCC National Communications and encourage participation in EC country programming.

Integration of Climate-Risk Management in General- and Sector- Budget Support

33 For GBS programmes, climate risk integration opportunities should be assessed in the CSP against the Poverty Reduction Strategy Paper (PRSP) and national DRM and climate risk mitigation plans. The Study suggests that GBS could best tackle CC issues if these are explicitly factored in the country's PRSPs, just as was the case with DRM. This would allow policy dialogues around GBS to judge how significant those vulnerabilities are across the partner's systems and sectors, and propose designs of GBS consistent with recipient country policies. Of the aid delivery modalities used by the EC, Sector Budget Support (SBS) offers the required balance between scale of delivery (capable of handling large volumes of funding) and traceability of EC investments to ensure these are not exposed to unacceptable levels of fiduciary risk. SPSPs are the principal route that could enable the transfer (and the effective uptake by partners to deliver required outcomes) of the increasingly-higher volumes of climate-focussed development aid that will be needed, as CC impacts begin to kick-in, with successively graver effects on decadal time scales.

34 Framing CC purely as an environmental issue is a continued obstacle to effective mainstreaming into GBS since the direct relevance of CC is clouded by economic growth and development planning (such as local spatial planning issues, energy policy implications and tackling the diverse and high risks of impacts of CC on poverty alleviation). This means that adaptation funding through budget support certainly requires an adaptation-specific assessment framework. This is scientifically challenging, and requires innovation.

Recommendations

- Recommend the design and delivery of SBS programmes that specify what is expected to be achieved and by when, ensuring that indicators measure performance in terms of actual 'disaster and climate risk management outcomes';
- Recommend that, in an integrated focus, policy dialogue and SEAs deliberately engage in wider consultation, to describe the state of the sectors at-risk and of interest, to identify and evaluate (even using ranking) the major climate/disaster-related research and development priorities facing those potential priority focal sectors; and,
- For GBS programmes, while progress is assessed against the existing PRSP, partner governments should account for national objectives alongside international adaptation/mitigation commitments.

Recommend that efforts are made to encourage partner government, with joint –donor support, to build significant climate and disaster risk management elements into PRSPs.

Project Climate Change Risk Screening

35 The evaluation of the *Project Climate Change Risk Screening* procedure proposed to be integrated in the tool-box for environmental and climate change integration in development cooperation has been positive. While considerable modifications were made, the country meetings at Delegations focussing on its validation confirmed that the procedure could be used at the end of Identification and guide formulation. Despite its usefulness, the procedure could be significantly improved, for instance using the country-tested questions, and formulating the questions in a clearer manner.

Recommendation

§ Recommend continued development of the *Project Climate Change Risk Screening* procedure through a further piloting exercise that allows for iterations to correct any problems as it becomes applied by the Delegations.

Project Climate Change Risk Assessment

36 The option of increasing the coverage of climate risk issues within the ToR for EIAs was examined, to assess whether the procedure of 'enhanced EIA' could take the place of in-depth or comprehensive assessments of high-risk projects. Given the conceptual differences between environmental impacts and climate change impacts, this option was not recommended. The *Terms of Reference for a Comprehensive Assessment of High-Risk Climate Change Project* was provided towards the end of the Study and was briefly commented on. This comprehensive assessment is scientifically-challenging and requires some innovation. This Study finds that the role of the in-depth comprehensive assessment is intrinsic to the system for climate risk management that the EC is in the process of establishing.

Recommendations

§ It is proposed that the ToR for *Comprehensive Assessment of High-Climate Risk Projects* should be refined and pilot tested.
§ Recommend that once the *Project Climate Change Risk Screening* procedure is rolled out into use by Delegations, the *Comprehensive Assessment of High-Climate Risk Projects* could then be piloted and improved iteratively.

37 The results of the testing of tools for climate risk screening as well as key results of this study should feed into the revised *(Draft) Guidelines on the Integration of Environment and Climate Change in Development Cooperation*[32]*.* The Guidelines substitute the Environmental Integration Handbook and constitute the main toolbox prepared by EuropeAid Cooperation Office to support the integration of environment and CC in all sectors of cooperation. The guidelines provide those in charge of planning and delivering external aid with a coherent operational framework and a set of tools to be applied in the different phases of the cycle of operations and in relation to the three main aid delivery methods. Appropriate and consistent use of these G*uidelines* could be expected to further improve the mainstreaming of environmental and CC concerns in all sphere of development cooperation.

[32] European Commission, EuropeAid Co-operation Office: Guidelines on the Integration of Environment and Climate Change in Development Cooperation (2009)

GLOSSARY

Term	Definition
Adaptation	A process by which strategies to moderate, cope with, and take advantage of the consequences of climate events are enhanced, developed and implemented (see *Coping*) These initiatives and measures reduce the vulnerability of natural and human systems against actual or expected climate change effects. Various types of adaptation exist, e.g. anticipatory and reactive, private and public, and autonomous and planned. Examples are raising river or coastal dikes, the substitution of agricultural crops to deal with changing seasons and weather patterns, increasing water conservation to deal with changing rainfall levels, and developing medicines and preventive behaviours to deal with spreading diseases *etc* .
Adaptive Capacity	The ability of people, communities and systems to adjust to climate change (including climate variability and extremes) to moderate potential damages, to take advantage of opportunities, or to cope with the consequences. Parameters include: per capita income, inequality in the distribution of income, social services coverage, access to information, access and distribution of resources, technology, information and wealth; risk perceptions; social capital and community structure; and institutional frameworks that address climate change hazards. When positive and trending favourably, these are characteristics that enable a community to respond, recover and adapt. Its value is correlated to some degree with the Human Development Index.
Adaptation Assessment	The practice of identifying options to adapt to climate change and evaluating them in terms of criteria such as availability, benefits, costs, effectiveness, efficiency, and feasibility
Adaptation Benefits	The avoided damage costs or the accrued benefits following the adoption and implementation of adaptation measures.
Adaptation Costs	Costs of planning, preparing for, facilitating, and implementing adaptation measures, including transition costs.
Baseline	Reference for measurable quantities from which an alternative outcome can be measured, e.g. a non-intervention scenario used as a reference in the analysis of intervention scenarios.
Budget Support	A method of financing a partner country's budget through a transfer of resources from an external financing agency to the partner government's national treasury. The funds thus transferred are managed in accordance with the recipient's budgetary procedures. In the case of **General Budget Support**, the dialogue between donors and partner governments focuses on overall policy and budget priorities, whereas for **Sector Budget Support** the focus is on sector-specific concerns.
Capacity	A combination of all the strengths and resources available within a community, society or organisation that can reduce the level of risk, or the effects of a disaster. Capacity may include physical, institutional, social or economic means as well as skilled personal or collective attributes such as leadership and management. Capacity may also be described as capability.
Capacity Building	In the context of climate change, capacity building is a process of developing the technical skills and institutional capability in developing countries and economies in transition to enable them to participate in all aspects of adaptation to, mitigation of, and research on climate change, and the implementation of the Kyoto Mechanisms, *etc*. These efforts aim to develop human skills or societal infrastructures within a community or organisation needed to reduce the level of risk. In extended understanding, capacity building also includes development of institutional, financial, political and other resources, such as technology at different levels and sectors of the society.
Climate	Climate is usually defined as the average weather, or more rigorously, as the statistical description in terms of the mean and variability of relevant quantities over a period of time

Term	Definition
	ranging from months to thousands or millions of years. The classical period for averaging these variables is 30 years, as defined by the World Meteorological Organisation. The relevant quantities are most often surface variables such as temperature, precipitation and wind. Climate in a wider sense is the state, including a statistical description, of the climate system. In various parts of this report different averaging periods, such as a period of 20 years, are also used.
Climate Change	Climate change refers to a change in the state of the climate that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer. In popular shorthand it may refer just to those modifications to the climate system that are directly or indirectly attributed to human activities and are additional to the natural climate variability that would be expected during a comparable period. Climate change may be due to natural internal processes or external forcings, or to persistent anthropogenic changes in the composition of the atmosphere or in land use. Note that the Framework Convention on Climate Change (UNFCCC), in its Article 1, defines climate change as: '*a change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods*'. The UNFCCC thus makes a distinction between climate change attributable to human activities altering the atmospheric composition, and climate variability attributable to natural causes.
Climate Extreme	A climatic event that is rare within its reference statistical distribution for a particular place. Typically "rare" is interpreted as an event that is below the 10th percentile or above the 90th percentile. An extreme climate event may be due to natural internal processes within the climate system, or to variations in natural or anthropogenic external forcing.
Climate Change Impacts	The effects of climate change on natural and human systems. Depending on the consideration of adaptation, can distinguish between potential impacts and residual impacts: – Potential impacts: impacts that may occur given a projected change in climate, without considering adaptation. – Residual impacts: the impacts of climate change that would occur after adaptation.
Climate Proofing	Actions to ensure that development efforts are protected from negative impacts of climate change, climate variability, and extreme weather events. Climate proofing means making an asset resistant to climate damage, not making it immune to damage from extreme events.
Climate Prediction	A climate prediction or climate forecast is the result of an attempt to produce an estimate of the actual evolution of the climate in the future, for example, at seasonal, inter-annual or long-term time scales. Since the future evolution of the climate system may be highly sensitive to initial conditions, such predictions are usually probabilistic in nature.
Climate Projection	A projection of the response of the climate system to emission or concentration scenarios of greenhouse gases and aerosols, or radiative forcing scenarios, often based upon simulations by climate models. Climate projections are distinguished from climate predictions in order to emphasise that climate projections depend upon the emission/concentration/ radiative forcing scenario used, which are based on assumptions concerning, for example, future socioeconomic and technological developments that may or may not be realised and are therefore subject to substantial uncertainty.
Climate Risk Management	A systematic process of implementing policies, strategies, and measures to reduce the impacts of natural hazards and related environmental and technological disasters. This includes, among other things, disaster risk reduction, preparedness, response, recovery and rehabilitation.
Climate System	The climate system is the highly complex system consisting of five major components: the atmosphere, the hydrosphere, the cryosphere, the land surface and the biosphere, and the interactions between them. The climate system evolves in time under the influence of its own internal dynamics and because of external forcings such as volcanic

Term	Definition
	eruptions, solar variations and anthropogenic forcings such as the changing composition of the atmosphere and land use change.
Climate Variability	Climate variability is an inherent feature of climate. It covers the range of climatic activity possible on shorter time scales (seasonal, yearly, up to decadal) than those in which a changed climate can be stated with scientific confidence as operating, which by convention is usually a 30 year span – the 'climatological normal' or reference period from which anomalies are calculated as departures from that average Climate variability refers to variations in the mean state and other statistics (such as standard deviations, the occurrence of extremes, etc.) of the climate on all spatial and temporal scales beyond that of individual weather events. Variability may be due to natural internal processes within the climate system (internal variability), or to variations in natural or anthropogenic external forcing (external variability). The degree of variability may be described by the difference between long-term averages of climate parameters (e.g. rain, temperature, humidity, season length) and observed values.
Coping	The immediate actions in the face of an event or changes, and ability to maintain welfare (in contrast to adaptation, which refers to longer term adjustments to the framework within which coping takes place).
Coping Capacity	The means by which people or organisations use available resources and abilities to face adverse consequences that could lead to a disaster. In general, this involves managing resources, both in normal times as well as during crises or adverse conditions. The strengthening of coping capacities usually builds resilience to withstand the effects of natural and human-induced hazards.
Country Assistance Strategies/Plans	A generic term for documents setting out the planned programme of assistance provided by a donor to a country, usually for a set period (often 3-4 years). They address how to achieve the MDGs. Produced usually in consultation with governments, business, civil society and others within the country.
Covariate Risks	CC will especially exacerbate covariate risks. A covariate risk is a secondary variable that can affect the relationship between the dependent variable and other independent variables of primary interest. For instance, agricultural yield may decline over large areas and vector-borne epidemics may also affect price and employment).
Cyclone	Large-scale closed circulation system in the atmosphere above the Indian Ocean and South Pacific with low barometric pressure and strong winds that rotate clockwise. Maximum wind speed of 64 knots or more. Broadly equivalent to 'hurricane' for the western Atlantic and eastern Pacific and 'typhoon' in the western Pacific.
Direct and Indirect Risks	The direct impacts of CC will bring about a range of indirect risks. For example, impacts on the production patterns in agriculture and other natural resource sectors will have consequences (downstream effects) for rural incomes, food prices, labour demand, health and nutrition, access to drinking water, deforestation and soil erosion, and settlement and migration. These indirect risks are hard to predict but could have wide-ranging economic, social, environmental and political impacts which could surpass the impacts of direct climate risks (e.g. mass migration from the delta regions of Bangladesh into India).
Disaster	A serious disruption of the functioning of a society, causing widespread human, material, or environmental losses. These may exceed the ability of the affected society to cope, using its own resources.
Disaster Risk Management	A systematic process of implementing policies, strategies, and measures to reduce the impacts of natural hazards and related environmental and technological disasters. This includes, among other things, disaster risk reduction, preparedness, response, recovery and rehabilitation.

Term	Definition
Disaster Risk Reduction	People and institutions involved in preparedness, mitigation and prevention activities associated with extreme events. These include hazard forecasting and immediate relief efforts for major disasters resulting from floods, cyclones and, in some cases, pollution events. Includes specialists in the longer-term strategy of disaster prevention by anticipatory actions such as improved land-use planning, the establishment and enforcement of higher building codes, and modes of cost sharing such as insurance.
Drought	Drought is a 'prolonged absence or marked deficiency of precipitation', a 'deficiency that results in water shortage for some activity or for some group', or a 'period of abnormally dry weather sufficiently prolonged for the lack of precipitation to cause a serious hydrological imbalance'. Drought has been defined in a number of ways. Agricultural drought relates to moisture deficits in the topmost 1 metre or so of soil the root zone that affect crops, meteorological drought is mainly a prolonged deficit of precipitation, and hydrologic drought is related to below-normal stream flow, lake and groundwater levels. A mega-drought is a long drawn out and pervasive drought, lasting much longer than normal, usually a decade or more.
Epidemic	Either an unusual increase in the number of cases of an infectious disease, which already exists in the region or population concerned; or the appearance of an infection previously absent from a region.
Extreme Event	Event departing markedly from the average values or trends, and that is exceptional
Food Insecurity	A situation that exists when people lack secure access to sufficient amounts of safe and nutritious food for normal growth and development and an active and healthy life. It may be caused by the unavailability of food, insufficient purchasing power, inappropriate distribution, or inadequate use of food at the household level. Food insecurity may be chronic, seasonal, or transitory.
Flood	Significant rise of water level in a stream, lake, reservoir or coastal region.
Global Warming	Human activity leading to climate change primarily includes emission of greenhouse gases (e.g. carbon dioxide and methane) into the atmosphere, leading to less radiation of heat and global warming
Global Surface Temperature	The global surface temperature is an estimate of the global mean surface air temperature. However, for changes over time, only anomalies, as departures from a climatology, are used, most commonly based on the area-weighted global average of the sea surface temperature anomaly and land surface air temperature anomaly.
Greenhouse Gases	Principally carbon dioxide (CO_2). Other gases are methane (CH_4), nitrous oxide (N_2O), hydrofluorcarbons (HFCs), perfluorcarbons (PFCs), and sulphurhexafluoride (SF_6)
Hazard Analysis	Identification, studies and monitoring of any hazard to determine its potential, origin, characteristics and behaviour.
Hydro-meteorological Hazards	Natural processes or phenomena of atmospheric, hydrological or oceanographic nature, which may cause loss of life or injury, property damage, social and economic disruption, or environmental degradation. Hydro-meteorological hazards include: floods, debris and mud floods; tropical cyclones, storm surges, thunder/hailstorms, rain and windstorms, blizzards and other severe storms; drought, desertification, wildland fires, temperature extremes, sand or dust storms; permafrost and snow or ice avalanches. Hydrometeorological hazards may be single, sequential or combined in their origin and effects.
Irreversibility	Several risks associated with CC will entail irreversible damages to human, physical, social/cultural, natural, and political assets. In the absence of successful adaptation, CC risks will result in degradation of asset performance. When these shocks intensify in frequency and magnitude, some assets (e.g. households) will increasingly find it hard or impossible to recover; inter-generational poverty links will become more pronounced.

Term	Definition
	Irreversible damages to human assets, like taking children out of school and denying future opportunities are no less important than irreversible damages to natural and physical assets. There will also be irreversible destruction of habitats and species extinction which affects human well-being through material and intrinsic values.
Landslide	In general, all varieties of slope movement, under the influence of gravity. More strictly refers to downslope movement of rock and/or earth masses along one or several slide surfaces.
Land-use Planning	Branch of physical and socio-economic planning that determines the means and assesses the values or limitations of various options in which land is to be utilised, with the corresponding effects on different segments of the population or interests of a community taken into account in resulting decisions. Land-use planning involves studies and mapping, analysis of environmental and hazard data, formulation of alternative land-use decisions and design of a long-range plan for different geographical and administrative scales. Land-use planning can help to mitigate disasters and reduce risks by discouraging high-density settlements and construction of key installations in hazard-prone areas, control of population density and expansion, and in the siting of service routes for transport, power, water, sewage and other critical facilities.
Mitigation	A human intervention to reduce or store anthropogenic emission of greenhouse gases and thereby lessen climate change.
National Adaptation Programme of Action	National Adaptation Programmes of Action are intended to communicate priority activities addressing the urgent and immediate needs and concerns of Least Developed Countries, relating to adaptation to the adverse effects of climate change. The NAPA takes into account existing coping strategies at the grassroots level, and builds upon that to identify priority activities, rather than focusing on scenario-based modelling to assess future vulnerability and long-term policy at state level. In the NAPA process, prominence is given to community-level input as an important source of information, recognising that grassroots communities are the main stakeholders. The NAPAs focus on urgent and immediate needs – those for which further delay could increase vulnerability or lead to increased costs at a later stage. NAPAs should use existing information; no new research is needed. They must be action-oriented and country-driven and be flexible and based on national circumstances.
National Communication	The requirement to prepare a national communication is stipulated in article 12 of the UNFCCC and is mandatory for all parties to the Climate Convention except for Least Developed Countries. Generally, national communications are prepared at intervals of 3-5 years and must include information such as inventories of emissions, policies and measures, and proposed projects for financing.
Natural Hazard	Threatening event, or probability of occurrence of a potentially damaging phenomenon within a given time period and area. These geophysical, atmospheric, or hydrological events, or series of events, have the potential to cause significant harm or loss.
National Ownership	The effective exercise of a government's authority over development policies and activities, including those that rely – entirely or partially – on external resources. For governments, this means articulating the national development agenda and establishing authoritative policies and strategies. For donors, it means aligning their programmes on government policies and building on government systems and processes to manage and coordinate aid rather than creating parallel systems to meet donor requirements.
Policies, Plans and Programmes	Have different meanings in different countries according to the political and institutional context. Here these terms are used generically. ***Policies*** are broad statements of intent that reflect and focus the political agenda of a government and initiate a decision cycle. They are given substance and effect in ***plans*** and ***programmes*** (schemes or sets of usually linked actions designed to achieve a purpose). This involves identifying options to achieve policy.

Term	Definition
Poverty Reduction Strategy Paper	Prepared by a country government with the World Bank, International Monetary Fund and civil society and development partners. Describe the country's macroeconomic, structural and social policies and programmes over a three-year or longer horizon to promote broad-based growth and reduce poverty, as well as associated external financing needs and sources.
Preparedness	Activities and measures taken in advance to ensure effective response to the impact of hazards, including the issuance of timely and effective early warnings and the temporary evacuation of people and property from threatened locations.
Region	A region is a territory characterised by specific geographical and climatic features. The climate of a region is affected by regional and local scale forcings like topography, land use characteristics, lakes, etc., as well as remote influences from other regions.
Resilience	The ability of an individual, community or system to absorb disturbances while retaining the same basic structure and ways of functioning. This is determined by the degree to which the social system is capable of organising itself to increase its capacity for learning from past disasters for better future protection and to improve risk reduction measures.
Resilience - ecological	Degree to which perturbations can be absorbed by the system before it changes from one state to another. **Stability** is defined as a function of the tendency of a system to return to its original equilibrium after a perturbation.
Resilience - social	Capacity of groups or communities to adapt to, or learning to handle, stresses and external political, social, economic or environmental perturbations.
Risk	The likelihood of a specific hazard of specific magnitude occurring in a particular location and its probable consequences for people and property. It is a measure of harm or loss associated with an activity. Conventionally risk is expressed by the notation Risk = Hazards x Vulnerability. Some disciplines also include the concept of exposure to refer particularly to the physical aspects of vulnerability. Beyond expressing a possibility of physical harm, it is crucial to recognise that risks are inherent or can be created or exist within social systems. It is important to consider the social contexts in which risks occur and that people therefore do not necessarily share the same perceptions of risk and their underlying causes.
Risk Assessment	A methodology to determine the nature and extent of risk by analysing potential hazards and evaluating existing conditions of vulnerability that could pose a potential threat or harm to people, property, livelihoods and the environment on which they depend. The process of conducting a risk assessment is based on a review of both the technical features of hazards such as their location, intensity, frequency and probability; and also the analysis of the physical, social, economic and environmental dimensions of vulnerability and exposure, while taking particular account of the coping capabilities pertinent to the risk scenarios.
Risk Management Strategies	These strategies all have real and opportunity costs; the strategies are not mutually exclusive and may be complementary. Risk management is normally separated into *ex-ante (*before a risk event occurs) and *ex-post* strategies (after the realisation of an event). Risk management, if successful, results in *resilience*: ability to avoid the negative impacts of risk events and recover from them.
Ex-ante	Includes: § Prevention or risk reduction (e.g., emissions reductions) § Risk exposure and sensitivity reduction – actions to prevent or reduce asset exposure to such risks (e.g. asset and livelihood diversification, improved health and nutrition, improved water and sanitation); and the ability to which an asset may recover from negative impacts of risk events § Risk compensation arrangements (risk mitigation) - actions that can be taken before realisation of the risk to provide some compensation in the event of a

Term	Definition
	risk-generated loss (e.g., formal insurance, holding of savings, social networks)
	All of these *ex-ante* risk management strategies require real and opportunity costs before the risk event takes place. Yet there is no guarantee that the risk will take place and that the *ex-ante* actions will accomplish what they are supposed to do. Furthermore, when a risk event takes place, even with the best of *ex-ante* strategies, there is usually a need for some *ex-post* coping (e.g., insurance rarely compensates for all losses related to a given event, much less for multiple risks). Costs of action and uncertainty of climate risk really call for no regrets/low cost/robust action in the short term.
Ex-post	Concerns risk coping–actions taken to make up for losses after realisation of a risk event. This is often an *ad-hoc* risk management strategy with negligible upfront costs, but with potential *ex-post* costs and damages to the asset. These costs and damages are often not shared equally but are distributed in ways that reflect cultural hierarchy e.g. in households; age, gender, and status (for example, poor households forced to sell off women's jewellery, withdraw children from school, or reduce food consumption of some members)
Sea Level Rise	Sea level changes, both globally and locally, due to (i) changes in the shape of the ocean basins, (ii) changes in the total mass of water and (iii) changes in water density. Factors leading to sea level rise under global warming include both increases in the total mass of water from the melting of land based snow and ice, and changes in water density from an increase in ocean water temperatures and salinity changes. Relative sea level rise occurs where there is a local increase in the level of the ocean relative to the land, which might be due to ocean rise and/or land level subsidence.
Sectoral strategy and Sector Wide Approach	A policy framework, for the long- and/ or medium-term, which has been adopted by a government as a plan of action for a particular area of the economy or society. SWAPS or sector investment programmes are significant donor funding support a single, comprehensive sector policy and independent programme, consistent with a sound macro-economic framework, under government leadership. Donor support for a SWAp may take any form – project aid, technical assistance or budget support – although there should be a commitment to progressive reliance on government procedures to disburse and account for all funds as these procedures are strengthened.
Sensitivity	The degree to which a system is affected, either adversely or beneficially, by climate-related stimuli (including mean climate characteristics, climate variability, and frequency and magnitude of extremes). The effect may be direct (e.g. a change in crop yield in response to a change in the mean, range, or variability of temperature) or indirect (e.g. damages caused by an increase in the frequency of coastal flooding due to sea-level rise).
Slow Onset	Although the climate is already changing in measurable ways, much more change is anticipated. Indeed, many predictions of CC impact are found, subsequently, to be under-estimating.
Uncertainty	There is a great deal of uncertainty about when, where, and how much the predicted CC will be manifested. There is even uncertainty about the nature of some of the threats. Climate change could result in catastrophic disasters, or it could bring about entirely unexpected changes that scientists have not yet begun to consider. Few, if any, challenges confronted by policy makers have such complex long term implications and are marked by so much uncertainty. Fear and insecurity stemming from uncertainty about potential catastrophic impacts, is another adverse consequence of climate change.
Vulnerability	The degree to which an individual, community or system is susceptible to, and unable to cope with, adverse effects of climate change, including climate variability and extremes. Vulnerability is a function of the character, magnitude, and rate of climate change and variation to which a system is exposed, its sensitivity, and its adaptive capacity.

Term	Definition
Country vulnerability	A dynamic variable that depends on both biophysical and socioeconomic factors, and may be captured by a suite of socioeconomic, political and environmental variables. Development and poverty-oriented literature places emphasis on the current social, economic, political conditions, which should represent the sensitivity and exposure of national populations to climate hazards, and allow the transparent development of country rankings with open sets of weightings.
Biophysical vulnerability	Focuses on the ecological processes related to vulnerability, namely the susceptibility and exposure to environmental changes
Social vulnerability	Focuses on the political, socio-economic, cultural and institutional aspects of vulnerability, and is gauged by indicators that measure education levels, income, poverty rate, social capital, extent of livelihood diversification, land use and access etc.
Current vulnerability	Based on present climate and variability and defining it allows known risks to be assessed and measures to be put in place to reduce or manage those risks.
Future vulnerability	Involves assessing potential risks, over and above known risks, with the goal of estimating risk levels and identifying the appropriate adaptation measures.
Vulnerability Assessment	Examines functions, dynamics and synergies of changes in the environment or society to help decision-making processes, by determining the risk of adverse effects on units, groups or regions exposed to these perturbations or stresses and identify factors that raise or diminish adaptive capacity. The analysis must consider that impacts of climate change are not simply climatic in nature, but are influenced by a number of processes and by both anthropogenic and natural factors. The objective is to determine the risk of adverse effects on units, groups or regions exposed to these perturbations or stresses and identify factors that augment/diminish adaptive capacity. Outputs are an analysis of specific effects caused by a number of factors for use in strategic policy councils, decision-making processes, defining adaptation measures.