

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

S u m m a r y R e p o r t

September 2009



**EUROPEAN
COMMISSION**

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.

This document should therefore not be considered as an official document

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)¹ 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

	<i>CLIMATE SHIFT</i>		<i>VULNERABILITY ELEMENT</i>	
COUNTRY RISK FACTOR =	Composed from World Bank data		Composed from national proxy indices	
	Overall likelihood of climate/weather events/trends	X	Overall magnitude of events/trends	X
			$\frac{\text{Receptor - Sensitivity X Exposure}}{\text{Coping Response + Adaptive Capacity}}$	

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):

¹ IPCC Third Assessment Report "*Climate Change 2001*"

Equation 2

<p><i>Country Vulnerability to Climate Risks</i> =</p>	<p>Country area – presence of geo-climatic risk*</p> <p>X</p> <p><small>* neither assesses the areal coverage of the higher-risk geo-climates, nor represents their proportion versus the surface of the country</small></p>	<p>Aggregate of Governance & Absence of Violence Indices + the Food Security/Undernourishment Index</p> <hr style="width: 50%; margin: auto;"/> <p>Human Development Index</p>
--	--	--

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

Equation 3

<p>Country CC Risk Factor</p>	<p>=</p>	<p>Climate Shift (developed from World Bank Climate Portal data)</p>	<p>X</p>	<p>Country Vulnerability to Climate Risks</p>
--------------------------------------	----------	---	-----------------	--

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 <i>Note: this does not account for climate shift</i>	0.15	0.18	0.61	0.17	0.40	0.17	0.41	0.32	0.21	0.13
Country Risk Factor <i>Note: this includes an adjustment for projected degree of climate change, approximated by the Climate Shift parameter</i>	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)*² 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.*

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	<ul style="list-style-type: none"> - 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 	<ul style="list-style-type: none"> + 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	<ul style="list-style-type: none"> - 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? 	<ul style="list-style-type: none"> + 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	<ul style="list-style-type: none"> - 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 	<ul style="list-style-type: none"> + Assess the organisations involved in the 2nd UNFCCC Communication for leadership and prepare plans to support partner government needs
Climate resilient sectoral development strategies	<ul style="list-style-type: none"> - 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 	<ul style="list-style-type: none"> + 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	<ul style="list-style-type: none"> - 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 	<ul style="list-style-type: none"> + 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	<ul style="list-style-type: none"> - 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 	<ul style="list-style-type: none"> + Identify current arrangements and indicate necessary realignments
Cross-departmental coordination	<ul style="list-style-type: none"> - 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 	<ul style="list-style-type: none"> + SWOT analysis of CC agencies + Promote use of strategic environmental assessments that require participatory action research working cross-sectorally

IN-COUNTRY ABILITY	TYPICAL COUNTRY CHALLENGES	RECOMMENDATION
Disaster Risk Reduction capacity	<ul style="list-style-type: none"> - 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 	<ul style="list-style-type: none"> + 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	<ul style="list-style-type: none"> - Definition of the role of local government - No policy framework mandated or sector ministry encouragement 	<ul style="list-style-type: none"> + 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	<ul style="list-style-type: none"> - 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 	<ul style="list-style-type: none"> + 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	<ul style="list-style-type: none"> - Degree of parties being informed - Perception that climate change is an environmental issue 	<ul style="list-style-type: none"> + 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	<ul style="list-style-type: none"> - Poor policy analysis capacities across all stakeholders - Unanalysed implications by stakeholders in climate exposed sectors 	<ul style="list-style-type: none"> + 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	<ul style="list-style-type: none"> - 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 	<ul style="list-style-type: none"> + 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)

CLIMATE CHANGE RESILIENCE AT PROGRAM AND PROJECT LEVELS

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 2007³) were consistent with the draft climate risk screening questionnaire, and incorporated some specific improvements developed during this Study. In particular,

³ 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

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*).

- 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 Programme India	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	REASONING WHY INITIATIVES DEEMED UNDER SOME CLIMATE RISK
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. Assumptions 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 out 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*⁴. 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 *Guidelines* could be expected to further improve the mainstreaming of environmental and CC concerns in all sphere of development cooperation.

⁴ European Commission, EuropeAid Co-operation Office: *Guidelines on the Integration of Environment and Climate Change in Development Cooperation* (2009)