

1. **Title of the investment plan:** Strategic Program for Climate Resilience in Cambodia
2. **Program under the SCF:** Pilot Program for Climate Resilience (PPCR)
3. **Name of the reviewer:** Arivudai Nambi Appadurai, Ph.D.
4. **Date of submission:** 26 May 2011

5. Part I: General Criteria:

- ***Compliance with the principles, objectives and criteria of PPCR as specified in the design documents and programming modalities:*** The draft SPCR for Cambodia is well written, detail oriented and sets clear goals with timelines and budgets, and adapted to national context. It complies with key principles, objectives and criteria of PPCR as specified in the design documents and programming modalities. The objectives such as transformational impact and scaling up of investments for climate resilience are reflected well.
- ***Consideration of the country capacity to implement the plan:*** Part 1 of the draft SPCR includes a section on institutional analysis, and it duly considers Cambodia's technical and institutional capacities to implement the investment plan. In order to address such capacity gaps and to coordinate, support and monitor all PPCR investments at the national level, the investment plan includes a large technical assistance project, which will build on capacity strengthening activities initiated in Phase 1.
- ***Development of SPCR on the basis of sound technical assessments:*** The proposed investment projects and technical assistance measures have been developed based on a primary assessment of the implications of climate change on priority sectors and regional geography. SPCR document seems to be developed based on an extensive literature review, appropriate vulnerability assessments, and analysis of the country's risk profile. The SPCR also benefits from recent findings of the draft second national communications to UNFCCC.
- ***Demonstration on how it will initiate transformative impact:*** The document explicitly identifies relevant actions that would be new or scaled up as part of the response strategy to climate change. The 'Rationale for PPCR support' section in Part 1 of the draft provides adequate information on how SPCR will initiate transformative impact. The various components suggested in the investment plan, if implemented well, can serve as catalysts for achieving transformation at both national and sub-national levels.
- ***Provision for prioritization of SPCR investments, stakeholder consultation and engagement, adequate capturing and dissemination of lessons learned, and monitoring and evaluation and links to the PPCR results framework:*** SPCR document is cognizant of resource constraints, and prioritizes SPCR investments based on vulnerabilities of the key sectors such as water resources and agriculture. In terms of programming, it proposes five investment components

and one technical assistance project for Tranche 1 funding (\$80 million) and two investment components for Tranche 2 funding (\$25 million). It documents extensive stakeholder consultations held with line ministries, development partners, civil society and the private sector. All investment projects and the technical assistance identify specific opportunities for stakeholder engagement in implementation of the SPCR. However, there are a few gaps in the document in terms of spelling out the modalities of dissemination of lessons learnt at different levels and the outlay of a clear-cut monitoring mechanism, especially at the local level for respective investment projects. Links to the PPCR Results framework have been identified at both overall program level and at each investment project level.

- ***Due consideration of social and environmental issues, including gender:*** SPCR draft fully considers environmental and social issues including gender. Opportunities for gender mainstreaming have been highlighted in all proposed investments.
- ***Modality of SPCR support (supports new investments or funding is additional to ongoing/planned MDB investments):*** SPCR funding for Cambodia is largely additional to ongoing and planned investments from the Asian Development Bank. Thus it enables good leverage of additional resources for climate resilience. The document states that every dollar invested by PPCR will enhance climate resilience of nearly four dollars in investments. One technical assistance project is however a new investment.
- ***Consideration of institutional arrangements and coordination:*** SPCR investments and technical assistance project clearly identify institutional arrangements for implementation. Arrangements for overall PPCR coordination are also explicit.
- ***Promotion of poverty reduction efforts:*** SPCR draft identifies poverty and climate change linkages in Cambodia. All seven investment components are aimed to assist the most vulnerable populations of the society, and complement poverty reduction efforts.
- ***Consideration of cost effectiveness of investments:*** As noted earlier, all PPCR investments except technical assistance project are blended with ongoing or planned MDB investments. Such blending approach makes these investments highly cost-effective.

6. Part II: compliance with the investment criteria or business model of the PPCR

(a) Climate Risk Assessment:

- The SPCR has reference to climate change projections characterized by spatial variability in rainfall, temperature and sea level rise trends for the country, which translates into spatial heterogeneity in drought and flood incidence in the projected project sites. The SPCR has

given careful consideration to the choice of project sites based on the available assessment information, both present and the future scenarios.

- The document is very comprehensive in terms of the design of the framework, identification of performance indicators and performance targets. However, it is observed that emphasis is more on the articulation of socio-economic benefits than the ecological benefits of the proposed investment options.
- The proposed investment projects aim to provide transformational and scaled up support for implementing critical activities covering key sectors like water, agriculture and infrastructure across selected vulnerable zones of the country.
- ***Investment Project 1: Promoting Climate Resilient Water Resources and Related Infrastructure*** – The project has addressed most of the critical elements from the implementation point of view. It would add value to the project to build on the existing coping mechanisms in place and efforts have to be made to fine tune the appropriate strategies practiced by communities. For example, water use efficiency could be increased not only by retrofitting the reservoirs and upgrading of flood production systems, but also by reviving and revitalizing traditional water management structures to enhance flood and drought management in the respective areas.
- ***Investment project 2: Enhancing Climate Resilient Agriculture & Food Security:*** Though the outlay of activities are comprehensive, adequate attention has not been paid to the critical issue of livestock, which is part and parcel of agriculture and other imminent risks like migration and social displacement. In terms of the design of the activities though considerable emphasis has been provided to bring a balance between soft and hard interventions, the document is devoid of a plan to leverage the existing best practices. With reference to the flood protection mechanism, mangrove ecosystem restoration has been projected as a key activity. Instead of focusing on a single vegetative cover it is worth considering promotion of a mix of non-mangrove species (casuarinas, coconut trees etc.) along with mangroves bioshields. Bioshields of this type was promoted in India and elsewhere post Tsunami and this has yielded good benefits.
- The choice of project sites Koh Kong and Mondulkiri provinces is commendable as it tries to bring contrasting elements (flood & drought affected scenarios) and intra variability in terms of understanding adaptation issues. This investment project demonstrates the need for defining different entry points for different areas depending on the perceived risks.
- ***Investment project 3: Improving Climate-Resilient Infrastructure.*** This investment project interweaves climate change and infrastructure development through a well defined priority process. Factoring of scientific inputs to the infrastructure development process need to be

strengthened through appropriate skill development measures addressed to the relevant stakeholders.

(b) Institutions/ Coordination

- *Investment projects 1, 2 & 3* are well thought out in terms of bringing in appropriate institutional linkages. The success of the implementation strategies largely depend not only on the effective coordination between key ministries, departments and line staff but also largely on their ability to relate to the problems and their understanding of the implications of climate change. Though adequate outlines are provided to bring in the major institutional actors relevant to individual investment plans it is important to undertake an institutional mapping exercise to understand the cross linkages. Integration of local level institutions is critical to the success of the investment projects and the proposal need to revisit this particular strategy to take stock of the adequacy of representation of such institutions.
- The SPCR has visualized the network, but need to focus more on the functional aspects, especially, the roles and responsibilities of the involved institutions. The role of the government, civil society, donors and business community has been adequately expressed but one of the missing links is the integration of the academic community. Good science, sound research, relevant data inputs and analysis and a good feedback system is important for effective adaptation. The academic community has much to contribute in this and hence their involvement is very crucial and calls for attention.

(c) Prioritization

- All the investment projects have clearly brought out the importance of catalyzing complementary forms of investment (not always financial) in communities, markets, communications, governmental institutions and physical infrastructure that together provide a foundation for adaptation.
- The Investment projects have stayed focused on bringing additionalities to the ongoing development efforts, more particularly, in proposing measures to climate proof the identified relevant development activities. In doing so, the investment projects have done a good job in assigning priorities not only to the relevant sectors but also to specific activities that are critical to the individual sectors. However, there are two areas that need attention (i) Appropriate regulatory/legal mechanisms to enhance the effectiveness of interventions in the investment projects and (ii) development of a dedicated communication and dissemination strategy for all three investment projects. Communication, knowledge sharing and education are key aspects and deserve to be

pushed ahead in the agenda. It is important to spell out the modalities and provide a plan of action as to how the concerned agencies will be involved and in what capacity.

- Overall, the information provided in terms of the integration of the elements identified under the SPCR to the ongoing policy initiatives at the national level look very positive. However, a concerted effort is needed to take stock of policy implications for each of the proposed investment plans at regular intervals. The investment project document on climate resilience to agriculture is silent on the adaptation and mitigation linkages. This is certainly a priority area for consideration. There exists a huge economic opportunity for the farming community to leverage from the global incentive structures like the CDM and carbon trading.

(d) Stakeholder Engagement/ Participation

- One of the biggest strengths of Cambodia's SPCR lies in its visualization of the provision of an umbrella for a new partnership approach between government and all other actors and agencies. The proposed Civil Society Support Mechanism is really unique and deserves strong support. The document clearly reflects the measures put in place to consult with the respective stakeholders and outlines a clear plan on how this will continue during the implementation phase. Issues of equity, gender mainstreaming have been adequately emphasized in the proposal. The engagement with local governments/communities is critical and conscious efforts have to be made to consult with the local government units and the local communities to identify opportunities for cost effective, country- driven adaptation interventions. This approach has been given prominence in the document but needs to be monitored continuously to make the interventions more meaningful

7. Part III. Recommendations

- As noted earlier, the draft SPCR for Cambodia is a comprehensive program which is very likely to bring about transformative impact in terms of mainstreaming climate resilience into its development planning. Adoption of the following recommendations during implementation of the projects may enhance such impact.
- **Climate Risk Assessment:** There is a gamut of screening tools available that provide a broad overview to resource managers and development planners about the key climate risks that could affect implementation of development projects and related investments. *The resource managers and planners at all levels should be exposed to such tools to assess the vulnerabilities and possible adaptation measures. A program exclusively designed to cater to this or as part of the proposed set of capacity building efforts would be very helpful.*

- **Knowledge Management:** One of the SPCR's key objectives is to enable learning and sharing of lessons at the country and regional level. Additional efforts to address this must be taken during SPCR implementation. There are huge uncertainties around climate science and the lack of information results in poor planning. Good information on climate variability and change is needed in more accessible formats.

- In recent times, the value of information and communication tools (ICT) has been amply demonstrated across the world in enhancing rural livelihoods. The information resource centers and village level knowledge centers have provided enormous value in providing quality information in a timely manner, more particularly in terms of sending out early warning messages related to climate induced calamities to the affected communities in Indian sub continent. *It is recommended that the investment plans should have provisions under the communication activities to establish resource centers which would use ICT technologies to communicate mobilize and develop skills at the local level to manage climate risks effectively.*

- **Institutional Arrangement:** Though the value of integrating different institutions, agencies and their activities is crucial to achieve the desirable results, coordination becomes a major problem in mainstreaming adaptation. The priorities are different for different agencies and hence there is a *need to provide a mechanism to appoint a point person from each ministry/department and agency to support execute and monitor the activities that fall in their institutional domains to manage climate risks. This would add value to not only to effective coordination but also ensure effective delivery of the proposed outcomes.*

- **Monitoring & Evaluation:** The investment plans have well thought frameworks with clearly spelt out objectives, activities, outcomes, indicators and target groups. Though references have been made to promote effective monitoring of the progress of the implementation activities through the establishment of steering committee at the national level the investment plans *need to focus on establishing mechanisms to monitor the projects at the provincial/local level in order to bring synergy to the process.*

Response to Reviewer's Comments on the Strategic Program for Climate Resilience for Cambodia

Name of the Reviewer: Arivudai Nambi Appadurai, Ph.D.
Date of Submission of Review: 26 May 2011

Introduction

The Royal Government of Cambodia (RGC), the Asian Development Bank (ADB) and the World Bank Group (WBG) appreciate Dr. Appadurai's review of the draft SPCR for Cambodia. The review is comprehensive and provides many useful suggestions. This note summarizes our collective response on how various suggestions and recommendations have been considered in the final SPCR document submitted for consideration by the PPCR Sub-Committee.

Part I: General Criteria

1. We thank the reviewer for his appreciation of several strong points in Cambodia's SPCR, especially with regard to its (i) compliance with the principles, objectives and criteria of PPCR as specified in the design documents and programming modalities; (ii) consideration of national capacities to implement the investment plan; (iii) demonstration on how it will initiate transformative impact; (iv) prioritization of investments, stakeholder consultations and links to the PPCR results framework; and (v) consideration of environmental and social issues including gender, institutional arrangements and coordination, promotion of poverty reduction efforts, and cost effectiveness of investments.
2. The reviewer noted that there are a few gaps in terms of spelling out the modalities of dissemination of lessons learnt at different levels and the outlay of a clear-cut monitoring mechanism, especially at the local level for respective investment projects.

Response: Dissemination of program and project findings is a key activity for all SPCR investment projects. However, to make it explicit, the final draft contains a separate section under each investment project on modalities of knowledge management, lessons learned and best practices. These modalities will be further clearly defined during the preparation phase of the investment projects. In addition, the Knowledge Management and Learning Platform, a component of the technical assistance project, will be extensively used to disseminate findings at the national, provincial and commune levels. In terms of monitoring mechanism, the overall performance of SPCR investments will be monitored on the basis of progress in selected indicators given in Table 3. Additional indicators, which are appropriate at the local level, will be identified during the detailed design of each investment project and component.

Part II. Specific Criteria *Climate risk assessment:*

3. **Comment:** The reviewer observed that emphasis was more on the articulation of socio-economic benefits than the ecological benefits of the proposed investment options.

Response: In line with RGC's and MDBs' goals of poverty alleviation and inclusive social and economic development, we consider that it is important to highlight socio-economic benefits of

SPCR investments. Improvement in socio-economic conditions will contribute to enhancement of adaptive capacity of vulnerable populations in Cambodia. We, however, recognize the importance of ecological benefits as a basis for resilience and sustainability. Therefore, ecosystem-based approaches for adaptation have been emphasized especially in investment projects 2 and 3, and references to ecosystem-based adaptation have been made in the results framework. In Investment project 2, for example, a range of local and landscape scale strategies will be used to (i) increase resilience and maintain essential ecosystem services in coastal and agro-ecosystems and (ii) reduce the vulnerability of people and their livelihoods. These aspects have been emphasized in the SPCR.

- 4. Comment:** In Investment Project 1, the reviewer noted that it would add value to the project to build on the existing coping mechanisms and that effort has to be made to fine tune the appropriate strategies practiced by communities.

Response: We agree with the above comment. All investment projects and their components will effectively utilize local coping strategies and mechanisms. Proactive involvement of local communities and civil society organizations in implementation of SPCR investments is expected to facilitate this. In all investment projects, efforts will be made to synthesize information on local coping strategies and on ways to fine tune them under different agro-ecological settings. Community-based disaster risk reduction and management approaches will be employed in all projects.

- 5. Comment:** In Investment Project 2, the reviewer noted that adequate attention has not been paid to the critical issue of livestock, which is part and parcel of agriculture, and other imminent risks like migration and social displacement.

Response: We concur with the reviewer's view that improvement of livestock resilience to climate change is also important. However, stakeholder consultations during preparation of SPCR and NAPA did not identify livestock as a priority area for PPCR investments. We recognize the fact that livelihoods of several vulnerable communities in Cambodia depend on fisheries, especially in provinces around the Tonle Sap Lake. Therefore, investment projects 1 and 2 will focus on enhancing climate resilience in provinces around the Tonle Sap and coastal provinces such as Koh Kong. The adaptation measures proposed in these projects will aim to enhance resilience of fishermen. Risks such as migration and social displacement due to floods and droughts, and potential countermeasures will be examined in all investment projects.

- 6. Comment:** In terms of the design of the activities, though considerable emphasis has been provided to bring a balance between soft and hard interventions, the document is devoid of a plan to leverage the existing best practices.

Response: We do not agree with the above comment. As noted earlier in point 4, adaptation measures in all investment projects will build on local knowledge, and efforts will be made to leverage the best practices. The plan is to synthesize information on existing best practices and examine the options for fine tuning them. The technical assistance project will facilitate this process through various feasibility studies on NAPA projects.

- 7. Comment:** In Investment Project 2, the reviewer noted that instead of focusing on a single vegetative cover, it is worth considering promotion of a mix of non-mangrove species (casuarinas, coconut trees, etc.) along with mangroves bioshields. preparation stage, we will examine the possibility of including non-mangrove species to enhance the overall resilience of coastal ecosystems.

8. Comment: In Investment Project 3, the reviewer noted that factoring of scientific inputs to the infrastructure development process need to be strengthened through appropriate skill development measures addressed to the relevant stakeholders.

Response: We agree with the above comment. For example, component 1 of the investment project 3 will review Cambodia's road design standards, and suggest changes required to cope with future impacts of climate change. The proposed changes will be fully based on scientific inputs on climate change modeling, and engineering improvements. All components of the investment project 3 will strengthen capacities and skills of relevant stakeholders.

Institutions/Coordination:

9. Comment: Though adequate outlines are provided to bring in the major institutional actors relevant to individual investment plans, it is important to undertake an institutional mapping exercise to understand the cross linkages. Integration of local level institutions is critical to the success of the investment projects and the proposal needs to revisit this particular strategy to take stock of the adequacy of representation of such institutions. The SPCR has visualized the network, but need to focus more on the functional aspects, especially, the roles and responsibilities of the involved institutions.

Response: We agree with the above comment. Institutional mapping will be conducted during the detailed design of each project component. Local institutions, depending on their comparative strengths, will be involved in implementing SPCR investments. The roles and responsibilities of various institutions will be determined during project design.

10. Comment: The role of the government, civil society, donors and business community has been adequately expressed but one of the missing links is the integration of the academic community. Good science, sound research, relevant data inputs and analysis and a good feedback system is important for effective adaptation. The academic community has much to contribute in this and hence their involvement is very crucial and calls for attention.

Response: The comment is well taken. Appropriate changes have been made in the final draft to reinforce the role of academic community. For example, the University of Phnom Penh, which is part of a university network to conduct research on adaptation and sponsored by the International Development Research Center of Canada, will be involved in the technical assistance project. Through the TA project, efforts will also be made to strengthen capacities of academic community in Cambodia.

Prioritization:

11. Comment: The reviewer noted that the investment projects have done a good job in assigning priorities not only to the relevant sectors but also to specific activities that are critical to the individual sectors. However, he noted two areas that need attention (i) Appropriate regulatory/legal mechanisms to enhance the effectiveness of interventions in the investment projects and (ii) development of a dedicated communication and dissemination strategy for all three investment projects. The reviewer noted that it is important to spell out the modalities and provide a plan of action as to how the concerned agencies will be involved and in what capacity.

Response: We incorporated suggestions in the revised version by stating that necessary regulatory and legal frameworks to enhance the effectiveness of adaptation interventions will be identified during project design, and that a dedicated communication and dissemination strategy will be developed for each project. The Knowledge Generation, Management and Learning Platform under the Technical Assistance project will catalyze such efforts.

12.Comment: The reviewer noted that a concerted effort is needed to take stock of policy implications for each of the proposed investment plans at regular intervals. The investment project document on climate resilience to agriculture is silent on the adaptation and mitigation linkages. This is certainly a priority area for consideration. There exists a huge economic opportunity for the farming community to leverage from the global incentive structures like the CDM and carbon trading.

Response: We concur with the suggestion. Policy implications for each of the proposed investment will be examined during implementation of the project. The adaptation-mitigation linkages have been referred to in the revised draft. The possibilities for accessing carbon financing will be explored in conjunction with other projects such as GMS climate-friendly bio-energy.

13.Comment: The reviewer appreciated the civil society support mechanism of the technical assistance. He noted that the engagement with local governments/communities is critical and that conscious efforts have to be made to consult with the local government units and the local communities to identify opportunities for cost effective, country-driven adaptation interventions.

Response: We thank the reviewer for his appreciation of SPCR's support to the civil society, equity, gender mainstreaming and other issues. We agree with the suggestion that effective participation and involvement of the local government units and communities is crucial to make the program successful. Therefore, all investment projects will emphasize these aspects. Additional details on modalities for engagement of local communities and local governments will be determined during project design.

Part III: Recommendations

14.Comment: With regard to climate risk management, the reviewer noted that there is a gamut of screening tools available that provide a broad overview to resource managers and development planners about the key climate risks that could affect implementation of development projects and related investments. The resource managers and planners at all levels should be exposed to such tools to assess the vulnerabilities and possible adaptation measures. A program exclusively designed to cater to this or as part of the proposed set of capacity building efforts would be very helpful.

Response: We agree with the above comment. However, Phase 1 activities of the PPCR included the development of different screening tools for risk assessment. These would be available to all resource managers and planners. The PPCR Phase 1 aims to strengthen capacity of key stakeholders in assessment of vulnerabilities. SPCR Technical assistance project will build on those experiences.

15.Comment: With regard to knowledge management, the reviewer recommended that the investment plans should have provisions under the communication activities to establish resource centers which would use ICT technologies to communicate mobilize and develop skills at the local level to manage climate risks effectively.

Response: While we agree with the above comment, we need to assess resource needs for establishment and maintenance of such resource centers. The knowledge management component of the technical assistance project will examine possibilities for effective use of ICT in climate change adaptation. The final version of SPCR has been modified to reflect this. In addition, the possibilities for close collaboration with knowledge management platform of the Cambodia Climate Change Alliance will be fully explored during the implementation of project.

16. Comment: With regard to institutional arrangement, the reviewer noted the need to provide a mechanism to appoint a point person from each ministry/department and agency to support execute and monitor the activities that fall in their institutional domains to manage climate risks. This would add value to not only to effective coordination but also ensure effective delivery of the proposed outcomes.

Response: The PPCR Coordination and Technical Backstopping Unit to be established at MOE as part of the technical assistance project will create such a mechanism recommended by the reviewer. While actual details of the mechanism will be finalized during the project design, it is expected that representatives of all key ministries and agencies would be members of the steering committee of the PPCR coordination unit and would support, execute and monitor the activities that fall in their institutional domains to manage climate risks.

17. Comment: With regard to Monitoring and Evaluation, the reviewer noted the need to focus on establishing mechanisms to monitor the projects at the provincial/local level in order to bring synergy to the process.

Response: The monitoring and evaluation framework, which is fully consistent with the PPCR Results Framework, will focus on measuring progress in various indicators at the component, project and program levels. The effectiveness of various adaptation interventions will also be monitored at the provincial and other sub-national levels such as commune level in all investment projects. Appropriate mechanisms for monitoring and evaluation at sub-national levels will be determined during the project preparation stage.