

Annex 3: External Technical Review



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October 8, 2011

REFERENCE: Review of the Yemen SPCR

Dear Lia Sieghart:

Please find attached my review of the Yemen Strategic Plan for Climate Resilience (SPCR). I found the SPCR to fully meet the general criteria listed in the Terms of Reference and the specific criteria related to the Pilot Program for Climate Resilience.

Given the satisfaction of these criteria, my review has focused on opportunities to strengthen the implementation of this plan as it moves forward. I have made recommendations for some specific activities that may or may not be implicitly planned in the general activities described in the SPCR. While I do believe these activities are very important in the implementation of the plan, I do not believe that the plan requires revision to address these points. Rather the hope is that this review or the ideas expressed in it may be carried forward into the next phase of activities.

I am pleased to address any questions or concerns related to this review.

Sincerely,

A handwritten signature in black ink that reads 'C Brown'.

Casey Brown, PhD, P.E.
Assistant Professor

Yemen
Strategic Program for Climate Resilience (SPCR)

Summary of Written Comments Received from External Technical Reviewer

Comments have been received from Dr. Casey Brown on October 11, 2011

| Comments | Team Response |
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| Overall Comments on General Criteria | |
| Given the context, the proposed SPCR focuses on three “pillars” related to (1) mainstreaming climate resilience through an integrated cross-cutting approach, (2) knowledge generation and management, and (3) implementation of adaptation actions. These pillars are consistent with the needs to create the ability to manage change as it comes in an uncertain future | Thank you. |
| The proposed activities focus on four areas, the development of a climate information system, building resilience in the water sector, adaptation in rainfed agriculture and integrated coastal zone management. These focus areas are logical in that they represent opportunities for much progress, given that much needs to be done, and if successful will contribute real development achievements regardless of how future climate evolves. They represent development priorities and given their sensitivity to climate, are natural priorities for building climate resilience. | Thank you. |
| In the opinion of this reviewer the overall plan is well thought out, logical, and clearly builds from priorities identified in the National Adaptation Program of Action (NAPA). It satisfies the general criteria of the Pilot Program for Climate Resilience. In particular, the plan is well coordinated with the state of development and capacity in Yemen, is technically sound and adequately addresses priority issues. | Thank you. |
| Specific Criteria | |
| The SPCR clearly addresses the specific criteria associated with PPCR in terms of addressing climate risk assessment, coordination with institutions at all levels, and focus on prioritized activities and stakeholder engagement. | In addition every effort will be made during the detailed preparation and implementation phase to establish operational links and synergy among the four components. |

| Comments | Team Response |
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| <p>Consultation has been extensive, both with the public sector of Yemen, with other donors, and the stakeholders of Yemen. Continued dialog with these groups is clearly critical, given the nature of the planned activities which rely on “buy-in” at the lowest levels to the need for building climate resilience. As a whole, the SPCR can be seen as a plan for a participatory approach to building climate resilience, providing information for those who best know their opportunities and constraints for action. Thus building belief in the need for information, the demand, will be essential throughout the implementation of this plan.</p> | <p>The overall program will support bottom up planning and will support the devolution of responsibility for implementation to participating local communities.</p> |
| <p>Recommendations (Climate Information System)</p> | |
| <p>The planned development of a Climate Information System represents a very pragmatic approach to building climate resilience. Depending on how it is implemented, it also could be a missed opportunity for actually realizing resilience in the water, agriculture and potentially other sectors that could benefit. There is often an assumption that providing improved information will necessarily lead to improved decisions. Experience has shown that this is not necessarily true. In fact, hopes for great benefits from investments in better weather and climate information often fall short due to the mismatch between what is provided and what is needed. For better information to yield climate resilience, the generation of climate information must be “demand driven.” That is, there need be close coordination and collaboration between information providers, such as a meteorological agency, and the users of the information, such as the decision makers who manage water and agriculture, including individual farmers. Weather and climate information is often provided in forms that do not match the typical information that water managers and farmers use or can comprehend. Only through working together and through major efforts to enable true dialogue will the true potential of better information be realized.</p> | <p>We agree with the reviewer. In line with the guidance by the World Meteorological Organization (WMO), in the course of the preparation phase of the relevant investment in the SPCR it will be ensured that emphasis from production of forecasts and other products will be on delivering services based on user requirements. Thus we can expect that the proposed system will be developed in line with this concept, and with guidance from the international community. As a result, there will be close coordination between users and providers of these services.</p> |
| <p>It must be recognized that making decisions under climate and weather uncertainty is difficult, even with better information. The SPCR states that human and institutional capacity building is an objective and it is critical that this not be underemphasized in the development of the Climate Information System. Likewise, the objective of climate information for the sectors, a stated activity, must involve sector participation and dialogue as described</p> | <p>Agree. This is an underlying theme. A climate information system must be developed that meets user needs and expectations. Experience suggests that by including all stakeholders at the outset of the program, realistic requirements can be developed and met. This will be a priority of the climate service.</p> |

| Comments | Team Response |
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| <p>above. Within these objectives and also the activities in the water, agriculture and coastal sectors, there must be capacity building in the area of making decisions under uncertainty for their sector and how climate information can be productively employed. This is a clear interaction area between the sectors, as actions that can be taken are best known by the sectors, although that capacity likely needs development as well. The Climate Information Service represents a wonderful opportunity to mainstream resilience in all the sectors, but the sectors must be involved in the design of such a system from the beginning.</p> | |
| <p>Recommendations (Water)</p> | |
| <p>The planning for building resilience in the water sector is logically designed to complement the National Water Sector Strategy and Investment Program (NWSSIP). Accordingly, there is a focus on decentralization of water management and also on enforcement and monitoring, seen as clear needs to manage the overdraft of groundwater resources. One may note that as management is decentralized, it is critical that a network to disseminate information, such as the two way flow of demand driven climate information, be maintained. Thus in the area of institutional reform, the provision of the climate information that will be available via the Climate Information System, and the ability to improve that information through dialogue of water managers with the information providers should be given strong consideration. In the area of capacity building, enhancing the ability of water managers to understand and use technical weather and climate information is a natural priority. A small example is ensuring that if early warning systems are implemented, that there is an ability for people to act on such warnings, both in terms of their comprehension of the warnings themselves and in having the resources available to take action.</p> | <p>Agree. Warning systems are only effective if there can be an effective response. It is important to ensure that the decision process is built into the warning system. This will ensure that people can act on warnings that are developed specifically in line with the capability of people to respond which will be addressed and closely adhered to during the preparation phase.</p> |
| <p>One issue that may be given special consideration while moving forward is how resilience can be engendered in the NWSSIP. The NWSSIP is an impressive plan of action for improving performance in the water sector. Interestingly, it makes no mention of climate change. This may be due to a shorter planning time frame or may be related to the lack of clear climate change projections, although hopefully this is not the case as this should not be an impediment to climate resilient planning. Nonetheless, there are important concerns related to climate change that warrant attention in all planning efforts related to water. The possible magnitude of impacts of</p> | <p>The proposed intervention in the water sector would attempt to strengthen the focus of the water program on issue related to the impact of climate change on the water sector. It is important to ensure that SPCR would assist the water program to include in its long term planning issues related to climate change and to articulate policy and action and public interventions needed to address these issues. The proposed activities under SPCR would assist the water program assess the impact of climate change on rainfed areas including variability in rain fall patterns and their implications on drought and flood</p> |

Comments Team Response

climate variability and change are paradigm shifting, and thus some planning should be dedicated to these scenarios. Through such planning it may be possible to identify opportunities to take measures now at small cost that yield substantial benefits under future scenarios. The SPCR has an opportunity to complement this gap in the NWSSIP. A pragmatic way to do so would be to develop actions and activities that would be implemented specifically for two scenarios, one related to a dryer future and one related to a wetter future (where there may be opportunity). This could be complemented with planning for climate extremes related to variability, such as droughts and floods. In fact, one may discover that demographic issues overwhelm even these substantial potential changes in climate, but as yet this is not clear.

a match between what is provided and what can be used. Also, farmers need options in order to make changes when warranted based on the incoming information. The SPCR provides a clear framework for doing so, including thinking well beyond climate in terms of developing markets and moving into higher value agriculture. In fact, access to markets and the ability to diversify products are probably among the most important factors for resilience. Other specific options that may be considered for improving the climate resilience of agriculture are described in the Bill and Melinda Gates Foundation-funded report “Agricultural water management and climate risk” by Brown and Hansen.

management. The water sector related investment in the SPCR includes a special component to assess options needed to address flood control in both dry and wet zones and the role of local communities in implementing such actions through well planned participatory models of collective actions.

Thank you for this helpful comment. It is important for both components related to improving productivity of rainfed agriculture and enhancing the efficient use of water under increasing scarcity and supported by the proposed SPCR to design joint actions related to achieving both objectives. The impact of climate change on rainfed agriculture would require careful assessment of option of diversification of agriculture and the selection of high value crops with high adaptability to changing weather conditions especially temperature and the variability of the onset of the rainfall season. Another issue which would need attention is to improve managing increasing risk of rainfed agriculture through supplementary irrigation using recycled treated water and innovative watershed management. During the detailed design and preparation phase, the SPCR would address these issues and would propose testing several options related to issues related to the role public policy, modern rainfed agriculture and supporting water technology, and community participation.

Recommendations (Agriculture)

The planning related to rainfed agriculture is perhaps the strongest part of the SPCR. It reflects an understanding that water will need to move from agriculture to domestic water supply and thus a focus on improving the productivity of rainfed agriculture is a focus. As noted earlier, weather and climate information can improve agricultural production, but there needs to be

Recommendations (ICZM)

The actions planned for the coastal sector focus on the implementation of Integrated Coastal Zone Management. Specific activities are planned and they build from priorities in the NAPA. It’s not entirely clear as yet how the uncertainty of future sea levels will be incorporated into ICZM. This need not be an impediment. As noted earlier, planning for coastal zones has long occurred amid rising sea levels (and in some cases falling sea levels due to

Thank you for the recommendation. The team will review the new sea level change planning policy released by the US Army Corps of Engineers and incorporate in the project as relevant in the preparation phase.

The proposed intervention in the ICZM sector acknowledges the

glacial isostatic adjustment) and there are standard methods for doing so. Consideration may be given to the new sea level change planning policy released by the US Army Corps of Engineers which has carefully considered the implications of climate change on sea level and developed a pragmatic and implementable planning strategy.

absence of sufficient infrastructure to prevent adverse impact of sea level rise and extreme weather events. The project activities would include soft and hard options to address issues related to sea level rise, storm surges, etc.

One set of activities under the project could include expanding greenbelts and buffer zones by planting and replanting mangroves and palms; establishing and maintaining nurseries that provide cultivars and other materials; decreasing impacts from floods/drought through rain water retention; wetland conservation; climate-resilient environment friendly aquaculture and soft protection (e.g., beach nourishment and wetland construction and restoration).

Another set of activities under the project could include demonstration of climate resilient infrastructure at all project sites such as stone walls to protect from storm surges, coastal defense and walls for areas vulnerable to erosion, etc.

In addition, the project will fund the development and implementation of a communication and awareness raising program on

impacts of climate change and ICZM at national and local levels.