

**PILOT PROGRAM FOR CLIMATE RESILIENCE  
REVIEWER'S COMMENTS ON DRAFT SPCR TONGA**

1. Title of the SPCR: Strategic Program for Climate Resilience(Tonga)
2. Name of the reviewer: Ulric O'D Trotz
3. Date of submission: 22.03. 11

**Part I: Compliance with PPCR Specific Criteria**

*PPCR specific*

a) Climate risk assessment: The SPCR has been developed on the basis of available information on the assessment of the key climate impacts in the Pacific region, including the countries participating in the Pacific regional program; the vulnerabilities to the region and in all relevant sectors, populations and ecosystems; and the economic, social and ecological implications of climate change impacts.

**This was accomplished.**

b) Institutions/ co-ordination: The SPCR specifies the coordination arrangements to address climate change: cross-sectoral; between regional institutions and with relevant government institutions of the countries participating in the regional program; and including other relevant actors in the Pacific region (e.g., private sector, civil society, academia, donors, etc).

**Good – well articulated coordination arrangements**

c) Prioritization: The SPCR for the regional track has adequately prioritized activities taking into account relevant climate/risks and vulnerabilities and development priorities in the region, strategies and plans supporting regional collaboration; ongoing national policy reform processes and existing, relevant activities and strategies in the countries participating in the regional program.

**This was rigorously carried out utilizing current available tools for the process.**

d) Stakeholder engagement/ participation: The SPCR for the regional track has identified and addressed the needs of highly vulnerable groups in the region and the countries participating in the regional program. Governments of countries participating in the Pacific regional program have been adequately involved in the design of the SPCR for the regional track and the SPCR addresses their needs and expectations in terms of regional collaboration supported by proposed activities in the SPCR for the regional track.

**Satisfactory**

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**Part II: Compliance with General Criteria**

*General*

a) complies with the principles, objectives and criteria of the PPCR as specified in the design document; programming modalities and the guidance provided for regional programs;

**Good compliance.**

b) takes into account the executing agency's capacity to implement the SPCR, including its capacity to partner with the governments of countries participating in the Pacific regional program;

**This has been taken into account and resources have been allocated to ensure that this capacity meets the challenges of implementation.**

c) has been developed on the basis of sound technical assessments;

**This is certainly the case.**

d) demonstrates how it will initiate transformative impact in the Pacific region and support the transformative aspirations of the countries participating in the Pacific regional program;

**It does demonstrate how it hopes to accomplish these requirements.**

e) provides for prioritization of investments, adequate capturing and dissemination of lessons learned across the region and countries participating in the regional program in particular, and monitoring and evaluation and links to the results framework in the SPCR and linkages to the results frameworks in the SPCRs submitted by the countries participating in the Pacific regional program (if available);

**To a certain extent does satisfy most criteria indicated except that I cannot comment on linkages to the results frameworks in the SPCRs submitted by the other participating countries.**

f) has been proposed with sufficient stakeholder consultation and provides for appropriate stakeholder engagement, including the countries participating in the regional program;

**Stakeholder consultation has been excellent throughout the process of compiling the SPCR.**

g) adequately addresses social and environmental issues, including gender;

**These have been adequately addressed**

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h) supports new investments or funding additional to on-going/planned MDB investments;

**Has contributed to complementarity with other activities.**

i) takes into account institutional arrangements and coordination;

**These are taken into account adequately.**

j) promotes poverty reduction; and

**Good – the needs of the vulnerable poor have been given ample consideration**

k) considers cost effectiveness of investments.

**Yes**

### **Part III: Recommendations**

*Please provide any recommendations that could enhance the quality of the SPCR.*

#### **General Comments**

##### **Component 1**

Capacity building has to be a critical input into any developing country's efforts to build resilience to

climate change and the areas identified for capacity building in component 1 are relevant and key

areas for attention. However in the implementation of this component care must be taken not to centralise this capacity in one overarching institution (eg MECC or JNAP) but rather to ensure that

it is dispersed through the entire national system from community level institutions , civil society organisations , sectoral technical personnel/ministries, professional organisations (Institution of Professional Engineers of Tonga - IPET). Apart from building some redundancy into the capacity

building exercise this approach ensures that there is greater buy in from a wider cross section of key stakeholders in the entire exercise and broadens the national capacity base. For example in the community vulnerability work , working with the community in such a way that ensures that at

the end of the process the capacity to carry out such action in the future resides in the community

will pay dividends in the long run. Again in the infrastructure strengthening work the professional

engineering organisation (IPET) should be the main target of the relevant capacity building efforts

in this area. The business education initiative from the Chamber of Commerce ( establishment of a

dedicated training business education centre) could be an effective platform for training the business sector in inculcating climate risk management into business planning. Across all Ministries and especially at the level of the Ministries responsible for Planning and Finance capacity building (and to a great extent awareness) must be strengthened for incorporating climate

risk management into their decision making process. In particular the Ministry of Planning and Finance must inculcate a risk management ethic that not only informs their work but demands

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reciprocal consideration from all the other sectoral Ministries whenever sectoral development plans

and budgets are being considered.

The range of capacity required to address climate change risks is wide and it is unrealistic for small

countries like Tonga to envisage a scenario where all the necessary capacity resides in local personnel/institutions. As such the proposed pool of experts under the regional umbrella is a welcome and necessary step and the national capacity building effort should liaise closely with this

group to ensure that generic approaches to delivering training are adjusted to reflect local circumstances. Further and this comment is not confined to the capacity building element in the programme the philosophy that should inform the implementation of this programme is that any expert utilised works "with" and not "for" local stakeholders. That approach ensures that the expert

input is informed by the local circumstances and much more importantly that capacity is left behind

after the completion of the exercise. I am not clear whether or not the expert pool of expertise would be drawn from the region but it should be the intent of the regional programme to develop such an institutional arrangement that key areas of expertise drawn from a regional pool of experts

are always available even at the end of the intervention. In other words I am suggesting that this should be institutionalised as a mechanism to deliver key expert services to South Pacific SIDS. Finally on the capacity building issue operators should be aware of the wide range of training material that has emerged over the past decade and should take advantage of these developments to be selective in courses to be utilised so as to ensure that they are the most appropriate for local circumstances. The activities envisaged under the "establishment of an enabling framework for climate proofing critical ports and associated infrastructure" are quite complex and require several inputs from a multidisciplinary team. The stated intent to undertake these activities in collaboration with the regional track programme should be adhered to as this activity must be key for all South Pacific SIDS. To be most effective and to get the best output from

the investment in this exercise I would suggest a regional approach to working out the technical details -- climate projections, vulnerability assessments building codes etc. Is there any possibility

of a framework for the harmonisation of legislation and building codes across the region as an output under the regional tranche?? One of the critical capacity building requirements which will be

relevant to all SIDS in the Pacific is that of developing the skill to utilise climate risk management in

their planning regime. There should be some input through the regional SPCR to develop a robust

Risk management tool that can be utilised widely through the South Pacific SIDS (generic tool which can be customised for the individual islands through use of site specific quantitative information). Fortunately the region is not starting from scratch in this effort as most of the islands

have been exposed to the use of the risk management tool CHARM. CHARM can now be utilised

as the basis for the development of a robust Risk Management tool through the incorporation of some of the latest risk management techniques and for countries through the utilisation of more quantitative information becoming available from e.g. the site specific climate scenarios. But this effort has to be regionally led.

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### **Component 2**

Component 2 is well conceived and reflects the direction countries are considering now to address

vulnerability especially for the poor and disadvantaged communities. One fully understands the issue of scarce resources available for this type of action at the local level so the use of the PPCR

in this manner is commendable. Here are a few suggestions however for your consideration as you

move forward with the implementation of this component:

- Sustainability of the funds – consider the grant for adaptation especially if such adaptation has to be for personal property (retrofitting home) as a loan which will be provided at very concessional rates. The idea is to establish a revolving fund which is constantly being replenished. Retrofitting costs can be kept to a minimum if community labour is utilised through training of a cadre of community artisans to carry out such actions on request. Also is it possible to get a local insurance company involved to provide cover at concessionary rates to those who retrofit – rewarding good behaviour so to speak.

- Insurance in a big challenge for SIDS especially for government infrastructure and fast start financing for recovery though critical is usually slow in coming. In the Caribbean governments are now subscribing to a Caribbean Catastrophe Risk Insurance Facility, a model which provides “a tangible example of an operational regional risk pooling mechanism which can be adapted for other regions as part of a comprehensive toolkit available to the developing nations of the world to assist in their adaptation to climate change. Through the pooling of capital into a collective reserve and spreading of risks geographically, the Facility provides extremely cost-efficient coverage options for its participants against extreme natural events, the socio-economic impacts of which are beyond the management capacity of any individual country”. It may be useful if under the regional programme such an approach could be explored for the Pacific SIDS as it has proved to be very effective in the Caribbean.

- Insurance for small farmers is a challenge throughout the developing world and is a key requirement in addressing food security and poverty alleviation. One might consider some sort of parametric insurance in which there is an event trigger assuring the insured expeditious disbursement of resources and allowing the individual to return to the productive mode as soon as possible. With the upgrading of the national hydrometeorological capacity such an insurance system might well be designed and supported.

### **Component 3**

While I agree with the general thrust of the activities articulated under this component I would like

to suggest that it may be missing an opportunity to promote the concepts of “building climate resilience” and “integrating actions under climate resilience and disaster risk reduction” through some more visible interventions/actions e.g.

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- It is now an accepted fact that Marine Protected Areas are an effective adaptation tool for dealing with climate change impacts on fisheries. Why not invest in strengthening whatever MPAs now exist, strengthen community (fisherfolk) understanding of the role they play in sustaining livelihoods and train them in the management and surveillance of the MPA and provide support to facilitate their ability for proper surveillance (boats, engines etc.). As a parallel exercise get expert analysis of the extent of the present MPA regime with a view to understanding whether this needs to be further extended to meet emerging climate risks, work on effective MPA legislation to incorporate new designated areas and also to promote enforcement.

- In the analysis carried out in the development of this programme food security is identified as a critical issue with I think some 58% of the Tongan population in primary production. The proposal is not too specific in what is intended under the item “ecosystem based agriculture” but here I would suggest there is an opportunity for interventions that would promote actions aimed at farming in a changing climate e.g. organic farming, drip irrigation, water harvesting and storage for irrigation, mulch agriculture, simple preservation techniques (solar drying), use of climate information to make decisions of planting times and types. All this could be part of two or three community garden pilots and certainly of a school gardening programme across the archipelago. With respect to the latter I cannot recall seeing too much about consultation with youth organisations during the consultative process. This school gardening idea will be a useful way of getting this important constituency on board. On the question of consultations I also think that there should be some effort to include faith based groups in the activity stream for although separated by denomination they still have the basic Christian faith as common ground and particularly in the disaster management area can be a powerful ally for getting communities to take desired action. Community & school gardens along the lines articulated above should require a modest allocation of seed money to get the exercise off the ground and should become self sustaining eventually. Finally on this issue some resources should be allocated to capture traditional practices in food production and preservation as part of the exercise to deal with food security and this should not be confined to Tonga but should also form an integral part of the other PPCR programmes in the region.

- I would recommend that some consideration be given to the building of a climate and earthquake resilient community shelter as a major activity under this pilot. This can either be done through retrofitting an existing shelter or building a totally new shelter depending on which is more cost effective. My reason for suggesting this is the strong “symbolism” this action has for the underlying tenet of Tonga’s PPCR which is the integration of disaster risk reduction and building climate resilience. One of the difficult barriers to overcome in achieving the latter is to clearly define the roles of the respective partners in this integrative process. From my perspective as a “climate operator” that role specifically for dealing with climate risks is to provide the knowledge base for decision making. Thus in undertaking the task suggested the project will support building a multihazard resistant community shelter using the new building codes etc. developed under the climate proofing exercise under this component and all the knowledge from the seismic risk community and the disaster

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management community working in a collaborative effort. The shelter will also address the critical issues of water availability (adequate water harvesting capacity), energy (totally supported by renewable – photovoltaic) sanitation (adequate and possibly no flush or low flush). The exercise apart from building the type of trust between the different players

involved in climate change adaptation and disaster risk reduction will be a platform to display the practical application of some of the knowledge base developed under the PPCR and is replicable.

- Under a programme we have just completed in the Caribbean we have successfully addressed implementing Adaptation activities in two countries and you may consider this as an activity that you may want to replicate. The first addressed acute water problems in a small island community in Bequia. The intervention involved the provision of a Salt Water Reverse Osmosis Plant completely powered by solar energy (photovoltaic). Incidentally this project was part supported by the GEF pilot Adaptation Fund and by Aus AID. The other involved retrofitting a large hotel in Saint Lucia for water harvesting and also for grey water recycling. The SWRO project was implemented in collaboration with two govt. Statutory bodies – the Water Authority and the Power Company. The cost benefit analysis shows that the entire exercise was feasible and replicable. In fact the water is produced at a cheaper rate than that produced on the main island and is of better quality. One of the key features of this project is the fact that the energy generated is in excess of that required for the SWRO operation and is fed directly into the grid. The Power company pays the Water utility for the excess energy generated and as such has revenue to maintain and services the facilities at the SWRO. The exercise with the hotel involved the participation of the hotel owner who invested part of the required capital. The project was in response to the availability of water in a watershed where there were multiple users – domestic, agriculture and light industry, recreation and to the deleterious effect of run-off from these activities on the marine environment. Moreover in times of water stress the hotel used most of the scarce resource due to the priority placed on the tourism sector. At the end of the project the hotelier became one of the most vocal supporters for the intervention as it turned out to have made sound economic sense for him to have done it and other hoteliers are planning to move in the same direction. The government in the meantime is amending legislation to make water harvesting and grey water recycling a requirement for all new hotel structures in the island.

- However many of these actions may have been considered during the compilation of the SPCR and not pursued due to local/regional activities that might be ongoing or planned and also might not be suitable for local implementation. Nevertheless they should be kept in mind. Overall then my assessment is that this is a very well conceived and constructed proposal, that, if implemented successfully, would contribute significantly to achieving the goals of the PPCR.

Ulric O'D Trotz

22. 03. 11