



**GLOBAL CLIMATE CHANGE ALLIANCE:
PACIFIC SMALL ISLAND STATES PROJECT**

**REPORT ON TONGA PROJECT DESIGN AND COSTING STAKEHOLDER WORKSHOP
20-21 June 2013**



*Workshop participants viewing a failed seawall
and the colonisation of mangroves behind the failed seawall*

Introduction

The focus of the GCCA: PSIS Adaptation Project: “Trialling coastal protection measures in eastern Tongatapu” is centred on protection of the coastline and building resilience to climate change in five villages from Nukuleka to Navutoka, Hahake, Tongatapu.

The project will implement and evaluate different coastal protection measures along a 6 km stretch of low-lying (less than 2 m above mean sea level) coast in eastern Tongatapu. The six coastal villages and coastal road in this area are already vulnerable to coastal erosion, the impacts of which will be exacerbated by sea level rise. There are 3,367 people living in this area and 566 properties. The

measures for implementation in this project include a mixture of soft and hard coastal engineering measures.

Objectives of the Workshop

The objectives of the workshop are:

1. To revise and finalise the log frame from the December 2012 planning workshop
2. To review the proposed design and costing of coastal protection options provided by eCoast consultants
3. To select and agree on the most appropriate coastal protection measures for implementation
4. To discuss and agree on the budget for the project

The workshop was organised and chaired by the JNAP (Joint National Action Plan for Climate Change and Disaster Risk Management) Secretariat.

Workshop Participants

There were 38 participants of which eight were town councillors from the affected villages. Participants came from the Ministry of Lands, Environment, Climate Change and Natural Resources (MLECCNR), Ministry of Finance and National Planning, Ministry of Infrastructure, and other government agencies. The list of participants is presented as Appendix 1.

Workshop Agenda

The workshop agenda is presented as Appendix 2. The main highlight of the agenda was presentations by the consultants on the proposed coastal measures, discussions and a field trip. Finalisation of the project log frame was another key item.

Workshop Results

The workshop was conducted in Tongan and English.

The workshop was opened by Mr Asipeli Palaki, Chief Executive Officer, MLECCNR. After providing some welcome remarks and background to the project, he noted that the GCCA: PSIS project would not cover all the coastal work needed in the area but that it would pave the way for further projects and provide valuable lessons.

Ms Lu'isa Tu'i'afitu Malolo then provided some further information and reiterated the outcomes of the planning workshop held in December 2012. The community representatives described their perspectives on the hardships and risks the communities were facing due to flooding, seawater inundation and coastal erosion.

The two consultants, Shaw Mead and Winston Hilliau, gave a presentation and showed how the coastline had retreated at different rates over the past 50 year. Some areas such as near Whitehouse Point had changed little, while other areas such as Makaunga had shown 10-20 m of erosion since 1981. Their conclusions were that the erosion was largely due to past sand mining, removal of mangroves and damage to the fringing reefs and that the erosion was exacerbated by climate change, especially sea level rise.

Their approach is one of “managed coastline advance” which will buy time, possibly decades, but will not provide a permanent longer term solution. The proposed measures are: (i) Makaunga to Talafo'ou – a series of permeable groynes, sand nourishment and planting of littoral vegetation; (ii) East of Manuka – a series of small offshore breakwaters, sand nourishment and planting of mangroves.

In the afternoon Shaw Mead and Winston Hilliau led a workshop to the affected area and showed where the measures would be constructed and pointed out many of the geomorphological features and coastal processes taking place along this stretch of coast.

On the second day of the meeting the consultants described the proposed monitoring and evaluation plan and noted how the SPCR program would likely build on these GCCA: PSIS activities and protect further lengths of coastline in the area.

The community representatives were then given a chance to respond. Whilst they expressed their preference for a seawall or rock revetment, they accepted the consultants' recommendations. Further discussion covered safety issues, tsunami risk, and impacts on fisheries.

The project log frame was also discussed and some minor revisions were accepted. This log frame forms the basis of the project design document.

The workshop was closed by Mr Asipeli Palaki who noted how the participants had worked together over the two days to agree on the two proposed options

Workshop Evaluation

The results of the workshop evaluation are presented as Appendix 3. The evaluations showed that the participants appreciated having the different options fully explained, as one participant said "Yes, due to all the presentations, discussions and questions and answers they fully clarified and justified the purpose and way forward of the project."

Conclusion

The workshop was successful in allowing different stakeholders to understand and comment on the proposed options. Now that stakeholders have agreed, the next step is to finalise the Project Design Document so that implementation can commence.

Appendix 1 Participants List

Facilitators

Dr. Gillian Cambers
Dr. Graham Sem
Dr. Shaw Mead
Winston Hilliau
Asipeli Palaki
Lu'isa Tu'i'afitu Malolo
Manu Manuofetoa

Participants

Taniela Hoponoa
Taniela Kula
'Ofa Kaisamy
Pesalili Tuiano
Leveni 'Aho
Andrea Talia'uli
Moleni Tu'uholoaki
Filimone Fifita
Tukia Lepa
Laiseni Liava'a
'Akapei Vailea
Mele Lasike
David king
Malini Teulilo
Lilu Moala
Eileen Fonua
Mafile'o Masi
Nalesoni leka
Lisiate Bloomfield
Lesieli Tu'ivai
Samuela Pakileata
Hoifua 'Aholahi
Siosi Fifita
Daisuke Yumiyama
Talo Fulivai
Meli Kaisamy
Filimone Moli
Siueli Fosita
'Ana Fonua
'Ana Fekau

Town Officers

Sitiveni Fe'ao
Sifa Lamipeti
Sione Talanoa Ika
'Asipeli Muti
Suli Kaafi
Vilimaka Tuiketei
Taniela takitaki
Lolomana'ia Fanguna

Appendix 2 Meeting Agenda

Day 1: Thursday 20 June 2013

Time	Activity/Topic	Lead Person
09:00 -09:15	Opening	Asipeli Palaki (CEO MLECC&NR)
09:15-09:45	Tonga GCCA:PSIS Project	Luisa
09:45 –10:30	Logframe from December 2012 and Revised Logframe June 2013	Gillian
10:30-11:00	Morning Tea/Coffee	Vendor/Supplier
11:00-11:30	Coastal changes and dynamics in eastern Tongatapu	eCoast
11:30-12:30	Proposed coastal protection measures for eastern Tongatapu (design and cost)	eCoast
12:30-13:30	Lunch	Catering vendor/supplier
13:30-16:00	Site Visit to eastern Tongatapu	eCoast

Day 2: Friday 21 June 2013

09:00-09:15	Recap of Day One: Key Points	Graham/Gillian
09:15-10:30	Breakout Groups to identify most appropriate option	Luisa (guidelines provided)
10:30-11:00	Morning Tea/Coffee	Vendor/Supplier
11:00-11:30	Monitoring and maintenance plan	eCoast
11:30 -12:00	Finalise Logframe	Gillian and Graham
12:00-12:30	Budget	Gillian and Graham
12:30	Closing and Lunch	Asipeli (CEO MLECC&NR)

Appendix 3 Workshop Evaluation

1. Did the workshop meet expectations?

- Yes, I came expecting to learn more about the GCCA's project and the workshop did just that. Not only did I learn more about the project and its progress but I also learnt from the district officers about their communities and what they are experiencing due to climate change.
- Yes, they taught me many things to implement in the community and also the understanding to use them.
- Yes, due to all the presentations, discussions and questions and answers they fully clarified and justified the purpose and way forward of the project.
- Yes, they have a job to do to stop sea foreshore and ground breakdown
- So far so good
- Yes, design and awareness programmes with the community so that they may be aware on how to protect coastal areas.
- Yes, it did
- Yes

1. State two key things that you learnt from the meeting?

- The design and details of the growers
- The history of land and soil erosion in the Hahake district.
- Find important things to help and support climate change
- The design criteria
- The discussion of the proposal
- Need to do the job ASAP
- Ensure security of that job
- The groynes and how the current affects the foreshore,
- how sand gets trapped into the lagoon
- Monitoring
- maintenance
- The two soft and hard protection options
- Using the option that is more environmentally friendly (combination of option soft and hard) while promoting Green business (tourism)
- Two design options
- Monitor and evaluation
- The workshop was very informative and had great input and comments from town officers.
- That donor/development partners will be tackling different villages in the Hahake district.
- The Euro 0.5m will be for implementation and that a separate budget line will be for other areas such as mainstreaming etc.

2. How could the workshop have been improved?

- More time for questions and answers and comments and also better translation of the stakeholder's viewpoints/questions to non-Tongan speakers.
- To improve the workshop they could look at the interest of the life of the community in regards to the future.
- All the documents including hand out and presentation must be translated into Tongan.
- Organise a trip to that place so that we can look at it and talk as a group.
- So far so good
- Better understanding the importance of the project related to the community in the future.

- Two options for these venerable communities (eastern)
- Work is about to be done in these communities
- None
- More presentations
- It would have been helpful if the town officers could have presented their views on climate change effects from the community lens. This could indicate the different levels of understanding from the different villages and aid those who will be implementing with what they are dealing with at the community level.