

Aitutaki Rauti Para Report 31st March – 4th April 2014

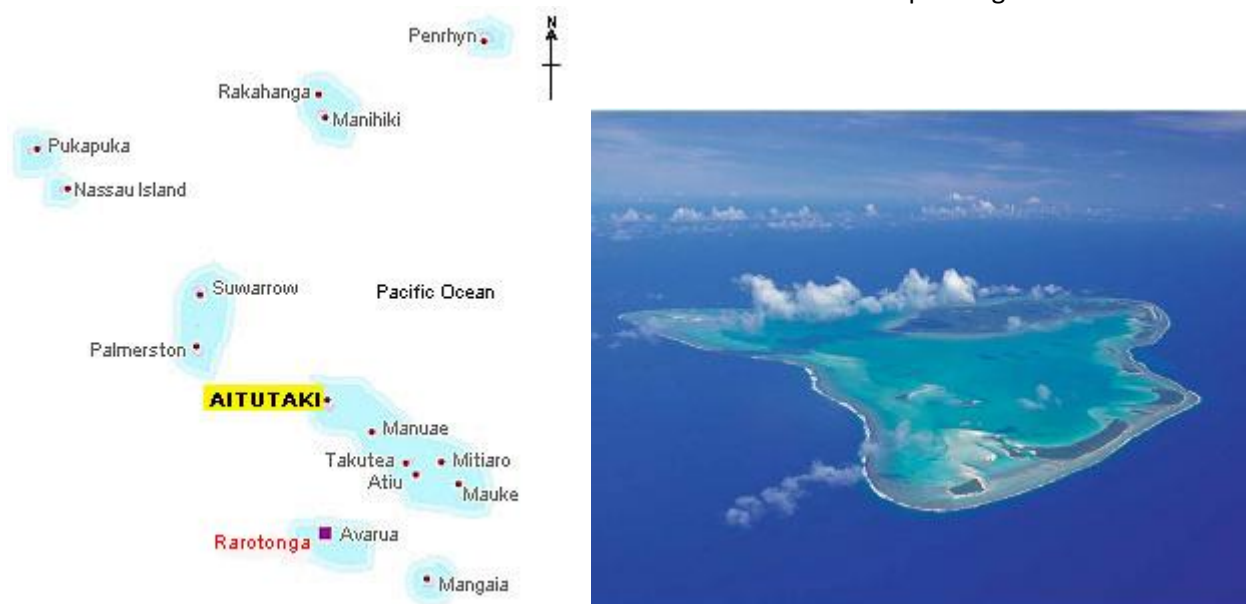
Introduction

The Rauti Para Tablet Training Project, funded by SPC EU GCCA: PSIS in partnership with the SRIC CC Adaptation Fund, continued on the island of Mauke from 31 March - 4 April 2014. Implementing agencies were Climate Change Cook Islands and the ICT divisions from the Office of the Prime Minister, Telecom Cook Islands, and Rauti Para (NGO).

The initiative of the project was to up-skill senior citizens in the Pa Enua (outer islands) to confidently use tablets to communicate and access information on the web to assist them with decision-making in building resilience to the slow onset of climate change. Secondly, a video documentary supported by a questionnaire survey to substantiate changes observed by people on their respective islands was conducted parallel to the tablet training to collect quantitative data to establish climate change indicators.

Background

Aitutaki is located at 18° 52' S and 159° 46' W, about 260 km north of Rarotonga. Aitutaki means “God-led”, and is a low volcanic atoll island with a total land area of 18.1 km² that is encircled by a 40 kilometer reef studded with 15 *motu* (islets). The island is 8.1 million years old with renewed volcanism around 0.9 – 1.9 million years ago, which is considered the last volcanic activity in the Cook Islands. The highest point Maungapu rises to 121 meters above sea level while the rest of the island consists of flat terraces of fertile planting areas.



Aerial view of Aitutaki island- photo from <http://www.cookislands.org.uk/aitutaki1.html>

The island of Aitutaki is acclaimed as one that depicts the entirety of natural beauty of both volcanic and atoll features, while also renowned for its flat fertile agriculture land terraces. Its magnificent lagoon parading the different shades of blue has certainly captivated visitors and attracted many tourist enterprises. Aitutaki was once a hub of agriculture activities in the 1950's and 60's second to mainland Rarotonga, exporting bananas to the New Zealand market and oranges to the Island Foods Canning factory in Rarotonga. It also produced and supplied *pia* (arrowroot starch) to the other islands and a lot of *pa'ua* (clams), *remu* (seaweed), *tupa* (crabs) and fish were harvested and shipped mainly to families and friends in Rarotonga and those travelling abroad. In 1951, *Akaiami* (one of the *motu*) was used as a refuelling station for the TEAL (Air New Zealand) seaplane on its island-hopping Coral Route Service from New Zealand, Tahiti, Western Samoa and Cook Islands.

Currently, tourism is well established as the main economic activity on the island, offering employment opportunities for the local population. Increasingly, a lot of fertile land is uncultivated due to a lack of reliable transportation and market opportunities, population decline, and pest infestations of agricultural crops.



Aitutaki lagoon with fertile terraces and the remnants of the 1951 refuel station for the TEAL seaplane on Akaiami 4 April 2014 (Photos by Celine Dyer)

The population of Aitutaki has basically remained constant over the years and is second to Rarotonga as the most populated island in the Cook Islands. Total resident population according to Census 2011 report was 2,038, with the majority of the population under 25 and over 39 (see *Table* below).

Total																	
225		213															
200	209																
175			179	183													
150										145							
125					137				127								
100						119	108	115			113						
75												90	90	82			
50															64		
25																39	25
Age Group	<5	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	>79

Taken from Census Report 2011. Grey area indicates age groups with low number of people, showing a bi-modal distribution.

Objectives

There were three components to this project:

- 1) Tablet training for senior citizens
- 2) To produce a video documentary on climate change indicators
- 3) Quantifying climate change indicators through a questionnaire survey

Tablet training

The Cook Islands national vision of '*Te Kaveinga Nui*' elaborates the desire of the government of the Cook Islands... '*to enjoy the highest quality of life consistent with the aspirations of our people, and in harmony with our culture and environment*'. This dream is further echoed in the Cook Islands National Sustainable Development Plan 2011 – 2015 under *Goal 5: Resilient and Sustainable Communities*, and *Goal 6: Environment for Living*. The Climate & Disaster Compatible Development policy 2013 – 2016 also mirrors these views through its strategic objectives of building '*...climate and disaster resilient development...*' as well as '*building capacity of people through education and training*'. The tablet training for the mature-aged population in the *Pa Enua* aims to address some of these ambitions.

Since the mature-aged remain in the *Pa Enua* with some caring for their grandchildren, it becomes a priority to up-skill these seniors as in this instant they are the lifeline for the survival and sustainability of their particular island, their culture, and their future generations. Although they possess local and traditional knowledge and practices that have worked in the past, their knowledge and skills may not be sufficient to meet or overcome the impacts of climate change. Thus, introducing them to accessible information via the tablet will allow seniors to build

upon their existing knowledge and practices. The training will certainly open new horizons for them to communicate with their families and friends living abroad while encouraging the sharing of information.

The Rauti Para project is a valuable and an historical moment for seniors in the *Pa Enua* as previous computer training have focused largely on Rarotonga; the *Pa Enua* are often overlooked due to funding restrictions. It is arguable that the existence and future survival of these islands may not depend on government or foreign aid, but rather on the ability of the *Pa Enua* seniors to interweave their traditional knowledge and practices with new knowledge that will ensure a more resilient population to both economic hardship and particularly the impacts of climate change.

Documentary

Documenting the experiences of seniors are useful to capture their thoughts and lifetime skills and local knowledge that otherwise will be lost. The value of this concept will be measured against the questionnaire survey that is running in parallel to this exercise. With this information, it is possible to elucidate the causes of changes observed especially whether they are climate- or human-induced.

Survey on climate change indicators

For this component of the project, questionnaires were designed to encourage people to talk freely about their personal observances of their environment in their normal everyday activities whether they are fishermen, farmers or housewives. The target number for the survey was based on population size of the island, with at least 10% of the population surveyed to be statistically valid for any analysis.

Delegation

The team was led by Climate Change Advisor from Climate Change Cook Islands Dr Teina Rongo, and included Mr Mitchell Tutangata of ICT, Ms Celine Dyer, Ms Ana Tiraa Director of Climate Change Cook Islands, Ms Maria Tuoro from Central Policy and Planning (all divisions from the Office of the Prime Minister), and filmmaker Mr Ted Nia.



Rauti Para team; Mitchell Tutangata, Dr Teina Rongo, Ana Tiraa, Maria Tuoro, Ted Nia and Celine Dyer 31st April 2014, Aitutaki.

Methodology

A tablet training workshop for seniors was conducted on Mauke. Running in parallel to the tablet training were video interviews and random questionnaire surveys around the whole island. The target age group for the questionnaire was from 20 years and older, while those interviewed on video were 60 years and older (see *Appendix 1* for questionnaire survey). People were only interviewed once, meaning that those who were interviewed on video were not interviewed with the questionnaire survey and vice versa.

Logistics

All logistics arrangements were organised by Mr Rob Matapo in collaboration with the SRIC Focal Point of Aitutaki Ms Shelley Tavai.

Day 1

The Rauti Para team departed Rarotonga airport at 3pm on Monday 31st March, and arrived in Aitutaki at 350pm. The team checked into their accommodation and waited for transport to take them to Vaitau school to check out the training venue and Wifi strength; Vaitau school was approximately a 15- to 20-minutes drive from where the team was staying.

Day 2

Tablet training was scheduled to commence at 830am and on arrival at the school, we were greeted by Shelley Tavai the SRIC Focal Point with a member of the Island Council. After the formalities, Mr Mitchell Tutangata took over the tablet training class while the rest of the team prepared to conduct the questionnaire and video interviews. Ms Tavai had organised six students from the Tertiary Preparation School to assist with the questionnaires as an initiative to give the students some experience in field work. Dr Teina Rongo briefed the students and the team on interview technique before everyone separated into three teams of three and the video team of four.



Students interviewing a mama of Vaipae village in Aitutaki 1st April 2014 (Photo by Celine Dyer)

At 630pm that evening, Dr Rongo delivered a presentation on climate change awareness in Maori, which was held in the Reureu Community Hall. About 30 people attended with more listening from outside.



Locals at the climate change awareness presentation by Dr Teina Rongo at the Reureu Community Hall 1st April 2014 (Photos by Celine Dyer)

Day 3

The same schedule from *Day 2* was followed except that the interview teams conducted the questionnaire interviews in the village of Amuri. The team also interviewed on camera the oldest person in the Cook Islands, mama Caroline Cameron-Ataia, aged 102 years and 3 months as of the 2nd April 2014.



The video team interviewing mama Caroline Cameron-Ataia of Aitutaki 2nd April 2014 (Photo by Celine Dyer)

In the evening, the climate change awareness presentation in Maori by Dr Rongo was held in the Vaipae Community Hall. Due to some sports competition on the island, the presentation was delayed to 7pm. Close to 40 people turned up for the presentation with others hanging around outside and listening in. The team also noted that some people from the previous evening were amongst the audience and were asking more questions. It was a very interactive session with people openly expressing their concerns about decisions made by the Government who haven't articulated issues in Maori so people can understand, and especially the use of technical terminology that people found difficult to understand as well.

Day 4

Training commenced at 900am while the rest of the team went to take some scenery shots of interesting areas on the island. At 1130am, the class finished and certificates were presented to the participants by the Director of Climate Change Cook Islands Ms Ana Tiraa. This was followed by the presentation of four tablets to the Focal Point Ms Shelley Tavai, who received it on behalf of Telecom Cook Islands.



Left: participants waiting to receive their certificates. Right: Ana Tiraa presenting the tablets to Shelley Tavai the SRIC Focal Point (Photos by Celine Dyer).

In the evening, the climate change awareness presentation was held in the Ureia Community Hall. Although not as many people attended, the team noted that those who were at the first and second presentations were again present. They came prepared with more questions to ask Dr Rongo. We noted also that people were comfortable asking questions because all the sessions were in Maori and people just opened up. The discussion focused on the Orongo project, which is a development of the Arutanga Harbour into a marina. People were concerned about this development after hearing of the impacts of climate change and how further stress to the marine environment, particularly those that may arise from channel dredging, may exacerbate problems that Aitutaki's lagoon is already encountering.



Attendees at the Climate Change presentation in the Ureia Community Hall, 3 April 2014 (Photo by Celine Dyer)

Day 5

With the exception of two team members, the team caught one of the lagoon cruises to explore the state of Aitutaki's lagoon. As the boat pulled out of the harbour on the western exposure of the island, an extensive area of green algal mats were spotted on the left side of the harbour. According to Dr Rongo, these algal blooms were likely the result of high nutrient levels in the lagoon.



Algal bloom along the western exposure of Aitutaki indicating poor quality water 4 April 2014 (Photo by Celine Dyer)

As the boat trip progressed, the team observed with great interest occasional white patches in the lagoon. Dr Rongo confirmed that the white patches were bleached corals. Bleached coral were noted on the reef crest and deeper lagoon locations of Aitutaki. Coral bleaching is a result of stressed corals often caused by prolonged elevated ocean temperatures. During the months of December 2013 to March 2014, the Cook Islands have been on the coral bleaching alert according to the NOAA coral reef watch website (<http://coralreefwatch.noaa.gov/satellite/baa.php>). Bleached corals on the reef crest were also visible from the plane when the team departed back to Rarotonga.



Left: bleached *Arcopora humilis* colonies on the reef crest in Amuri. **Right:** bleached *Acropora sp.* colonies in the lagoon near Motu Rakau in Aitutaki. 4 April 2014 (Photos by Dr Rongo).

The boat went to Motu Rakau and the team took a walk ashore, noting rich vegetation of *tamanu* seedlings growing wildly as undershrubs beneath large *tamanu* trees. The team took comfort in seeing that at least the *motu* had a healthy cover of indigenous vegetation, especially the *tamanu* and *tou* trees, as well as clear lagoon water that were free of algal mats.



Left: Mitch Tutangata under a large *tamanu* tree with *tamanu* seedlings all around. **Right:** Dr Rongo and Maria Tuoro observing schools of fish juveniles on Motu Rakau (photos by Celine Dyer).

Outcome

There were 22 participants who completed the tablet training workshop, with ages ranging from 37 to 79 (see *Appendix 2* for list of participants). Four video interviews were conducted and 61 questionnaire interviews.

Feedback from the tablet training

- ❖ Participants thoroughly enjoyed the training and requested for more training in the future.
- ❖ Participants regarded the training important and the tablet as a useful tool for communication in emergency situations.
- ❖ Participants applauded the training that it gave them confidence to use technological devices that otherwise they were reluctant to touch in case it got broken or damaged.
- ❖ The training gave the participants confidence to use their mobile phones as previously they depended on their grandchildren to make the calls or send messages for them.
- ❖ Participants felt a sense of achievement from the training by conquering their fears of technological devices.

- ❖ Participants placed orders for their own personal tablets. Even before the team departed Aitutaki, people were at the Telecom office waiting to use the tablets left behind by the team.
- ❖ Participants felt they were valued as citizens.

Feedback from the interviews and survey

- ❖ Results from the interviews on climate change indicators were consistent with the previous islands surveyed.
- ❖ People noted the huge *tamanu* trees dying maybe from the salt spray of cyclones.
- ❖ There were less fish, especially tuna, and smaller sizes caught.
- ❖ There is less shellfish in the lagoon maybe from overharvesting.
- ❖ Not much agriculture because of pest infestations and many planters gave up.
- ❖ People noted that the lagoon is getting shallower in some areas.
- ❖ There is an increase in shark numbers noted by fishermen.
- ❖ People have noticed a decline in fish recruitment during summer months.
- ❖ Mangoes are fruiting outside their normal season.

Feedback from the climate change awareness presentation

- ❖ People loved and enjoyed the presentation in Maori to the extent some attended all three presentations in the three villages.
- ❖ People openly expressed their concerns about government decisions made on their island, irrespective of their objections.
- ❖ People wanted to know how they can assist with the re-growth of the reef and coral.
- ❖ People were adamant that future developments on the island should consult with the people first before decisions are made and not the other way around.
- ❖ People commented positively on the presentations in Maori and suggested all government departments follow suit when presenting in the *Pa Enua*, particularly when using technical terms.
- ❖ People demanded for more climate change awareness presentations to the whole island, especially for the leaders such as the Island Council and traditional leaders.

Team feedback

- ❖ The people were concerned about the state of the environment and want to do something about it.
- ❖ The Rauti Para embraced the training and appreciated the opportunity given them which they never had before.
- ❖ Some of the students who assisted with the questionnaire survey would have added more value to the survey if they were given more time to get comfortable with the questions.
- ❖ Those who were in the training were quick to learn on the tablet.
- ❖ The people of Aitutaki were dissatisfied with previous government teams who spoke to them in English.
- ❖ The Island Council did not attend either training or awareness presentations despite emails circulated to them during the initial request to conduct this project in Aitutaki. Perhaps a reminder note should have been sent immediately prior to the team's arrival in Aitutaki.

Recommendations

- ❖ To plan and implement climate change awareness programs in the *Pa Enua*.
- ❖ These programs must be in Maori and delivered in Maori.

Considerations

- ❖ To assist the people with plans and suggestions to revitalise the reef and coral.

Conclusion

The overall project objectives for Aitutaki were achieved and much more, particularly regarding the interests and enthusiasm of people to do something about the issues raised at the climate change awareness presentations by Dr Rongo. People also urged more information sharing in Maori so they can understand technical information. Feedback from the tablet training served to further confirm the big gap in our society that the *Pa Enua* have been neglected due to funding restrictions. It also confirmed that seniors possess a wealth of information of their local areas which needed to be captured and preserved for future generations, as they are much more in touch with their

surroundings than the younger generation. The team strongly felt the value of this project was immeasurable, and that the project should extend to encompass the Rauti Para in the northern Cook Islands.



Proud participants of the Rauti Para tablet training in Aitutaki 31st March-4th April 2014 (Photo by Celine Dyer)

Acknowledgement

We wish to extend our warm congratulations to all the participants who successfully completed the training. We also thank Ms Shelley Tavai the SRIC Focal Point on Aitutaki for making all necessary arrangements for the project and also for volunteering some of her students to assist us with the questionnaires. To Bobby Bishop who represented the Island Council, thank you also for being there and for the great support from you. We thank all those who attended the presentations in the three villages, and to the village leaders for encouraging people to attend the meetings. To all those who graciously gave of their time to be interviewed, thank you so much for your kindness. Finally, our appreciation to all the caterers for a fantastic job in keeping everyone well fed. MEITAKI ATUPAKA!

References

1. Cook Islands Government, *Census Report 2011*, Ministry of Finance and Economic Management, Statistics Office
2. <http://www.cookislands.org.uk/aitutaki1.html> accessed 15 April 2014

APPENDICES

Appendix 1. Quantitative questions.

1. Have you heard of climate change?
2. Rank your understanding of climate change on a scale of 1-10 (10 being good)
3. Do you think that we are vulnerable to climate change impacts (e.g., cyclones, drought)?
4. Do you feel that outside assistance, such as financial support, is critical for us to cope with the impacts of climate change?
5. Is there a need to increase the awareness of climate change?
6. What seasonal resources on your island have you noticed have changed (e.g., fruiting season, spatial distribution) and how?
7. Do you know of any plant or animal on both land and sea that have declined or increased in abundance? (indicate a time period when this happened)
 - ☐ marine
 - ☐ land
8. Have you noticed any climatic changes e.g., rainfall, temperature etc.) on your island
 - Pre 1980s?
 - Post 1980s?
9. Have you noticed any hydrodynamic (e.g., currents) or tidal changes in the marine environment?
 - Pre 1980s
 - Post 1980s

Appendix 2. List of participant names.

Name	Gender	Age	Telephone	Email
Stephanie Joseph	F	54	31120	aitutakiisland@yahoo.com
Adrienne Harvey	F	60	31656	vaisalani@aitutaki.net.ck
Susan Henry	F	65	31444	susantherese@hotmail.co.nz
Kura Hennessey	F	72	31170	
Mimau Tom	F	68	31051	papatoms@aitutaki.net.ck
Kaiariki Bennion	F	59	31273	
Taviria Mitiau	F	56		
Vauru Mitiau	M	66	31176	
Amiria Davey	F	69	31240	
Josephine Lockington	F	69	31291	
Boaza Ngaro Tau	M	71	31278	bowin@aitutaki.net.ck
Winnie Ngaro Tau	F	74	31278	bowin@aitutaki.net.ck
Kira Tschan	F	56	31223	
Teio-o-te-rangi Ngati	F	26	31193	poko.junior@gmail.com
Teetu Tschan	F	60	31010	
Teina Mauke	F	59	31376	teinam@telecom.net.ck
Mauke Mauke	M	72	31376	
Daniel tuakeu	M	65	31238	
Puroku Mataiti	M	67	31150	
Bobby Bishop	M	51	31512	
Taraota Tom	M	73	31051	papatoms@aitutaki.net.ck
Mimau Tom	F	68	31051	papatoms@aitutaki.net.ck
Kaiariki Bennion				
Chalmahs Mackenzie	F	61	31444	
Matai Rongo	M	71		
Tarota Tom	M			