### 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 7 - 11 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

Mauke was the last of the southern Cook Islands to receive the tablet training. Originally named Akatokamanava meaning a place where warriors came and rested, it was changed to Mauke after the warrior Uke Ariki bathed in a spring hole and emerged clean (Mauke meaning Uke Ariki was clean). The centre of Mauke is flat with fertile agricultural land and swamplands. The island is surrounded by a rim of razor-sharp Cenozoic reef limestone (makatea) dated around 6 million years old, which rises around 24 metres above sea level. Maire grow wildly on the makatea, and discovery of this indigenous fern attracted overseas interest, particularly from Hawaii, where it is made into *ei* for visitors. Locally, *maire* was used in coconut oil. Maire exports was a thriving industry, however supply could not keep up with the market demand as changes to climatic conditions slowed the growth rate of the fern, and overharvesting became an issue.



The population of Mauke according to Census 2011 was 307, with the majority under 25 and over 44 years of age (*Table below*). Like all other islands in the Cook Islands, the migration of the young work force from their original island continues to be a problem predominantly in the Pa Enua (*outer islands*); left in the Pa Enua are the very young and the senior population.

Total																	
35			33														
30				27													
25		25								25							
20	21				22	19		19			19	19					
15													15	15	15		
10									9							7	11
5							6										
Age	<5	5 -	10-	15-	20-	25-	30-	35-	40-	45-	50-	55-	60-	65-	70-	75-	>79
Group		9	14	19	24	29	34	39	44	49	54	59	64	69	74	79	

*Census Report 2011.* Population distribution by age in Mauke. Grey area indicates age group 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 of Climate Change Cook Islands, Mr Upoko Keu from the Office of the Prime Minister, and filmmaker Mr Ted Nia.



Rauti Para team to Mauke, Mitchell Tutangata, Upoko Keu, Celine Dyer, Ted Nia and Dr Teina Rongo 7 April 2014, Rarotonga Airport.

### 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 Mauke Ms Eimoana Taia and the Executive Officer Mr Taukea Raui.



Ms Eimoana Taia the SRIC Focal Point for Mauke 11 April 2014 (Photo by Celine Dyer)

The Rauti Para team departed Rarotonga airport at 130pm Monday 7<sup>th</sup> April and arrived in Mauke at 220pm. After checking in at their accommodation, the team took a trip to check out the training venue and Wifi strength. The team was happy with the arrangements as the hall could easily accommodate up to thirty people and was located in close proximity to the Telecom office across the road.

### Day 2

After breakfast, the team made their way to the training venue where class was scheduled to start at 9am. The team thought they would arrive early at 830 to set up before people arrived. However, upon arrival at 830am, people were already seated and ready to start. Since the program was scheduled to begin at 9am we continued with our setup while everyone sat and waited for the starting time. At 9am, Ms Eimoana Taia took the lead with the formal proceedings. A prayer by the Orometua commenced the day, and the Deputy Mayor officially opened the workshop.

On behalf of the team, Ms Celine Dyer thanked everyone for the warm welcome extended and the enthusiasm to participate in the project. She also introduced the team members before giving a brief in Maori on the purpose and objectives of the Rauti Para project. The people were very receptive and warmed up to the team. Amidst these formal proceedings, the team noticed the hall filling up with more people, and they were concerned as only 14 tablets were available to share in the workshop. After a quick analysis of the situation with the increased number of people in attendance, the team made an executive decision to split the people into two groups. Those aged 40 and over were asked to attend the morning class while those under 40 were to attend in the afternoon.

Considering the changes, the team paused the workshop and Dr Teina Rongo conducted a climate change awareness presentation in Maori. The team were overwhelmed with the questions and discussions from the floor, which demonstrated great enthusiasm and passion to make a difference in adapting to climate change. After morning tea, Mr Mitchell Tutangata took over the tablet training workshop while the rest of the team went out interviewing.



First day of the tablet training in the Sunrise Hall with the older Rauti Para (left) and the younger (right), Mauke 8 April 2014 (Photos by Celine Dyer)

Before the class started, Dr Rongo gave another climate change awareness presentation to the older Rauti Para. After the presentation, Mr Tutangata took over with the tablet training while the rest of the team continued with the survey in Kimiangatau village. The team made a point of conducting everything in Maori.



Video crew interviewing a papa from Kimiangatau village 9 April 2014 (Photo by Celine Dyer)

Before the afternoon class started, Dr Rongo gave another climate change awareness presentation in Maori and likewise for the next few days. The people really appreciated the presentations given in Maori, which they openly expressed their gratitude and stated they would challenge future teams to their island to follow suit.

The same program from yesterday was continued. In the afternoon, the team interviewed Papa Mapu Taia who is the tumukorero (*orator*) of the island. We captured on video the story of Tangiia's anchor, the divided church and of course the famous Paikea. He also took us to the sights where the stories took place.



Papa Mapu Taia pointing out the anchor of Tangiia's vaka, which is the only volcanic rock found on the island; 10 April 2014 (Photo by Celine Dyer)

According to the story, Tangiia placed his anchor here to mark his meeting with Karika who was on his way to Rarotonga (*Tumutevarovaro*). Tangiia went to Mauke in search of the two beautiful daughters of Uke Ariki whom he eventually took for his wives.



Left: ceiling of the divided church showing where the different works are joined. Right: site where Paikea's wife Kea waited for her husband to return.

We were fascinated by these historical events and the stories associated with them and decided that this part of history must live on in our hearts and be passed down to the next generation the same way it was passed to us.

The final day of the workshop commenced with a final climate change awareness presentation by Dr Rongo. The people commended highly on the presentations in Maori and requested for other climate change workshops in Maori. After the presentation, certificates were given out to all participants who took part in the training. Four tablets were also presented to the Telecom officer for the Rauti Para of Mauke to access after our departure.



Young and old listening to the final climate change awareness presentation in Maori by Dr Teina Rongo 11 April 2014 (Photo by Celine Dyer)



Mr Poko Keu (in pink) presented the certificates assisted by Ms Eimoana Taia (in green) the SRIC Focal Point for Mauke 11 April 2014 (Photos by Celine Dyer)

#### Outcome

There were 52 participants in the training with 31 individuals over 40 years and 21 under 40 years of age (see *Appendix 2* for list of participants). Five people were interviewed on camera and 21 via questionnaire survey.



This dedicated mama is making her way to the Rauti Para tablet training class on 10 April 2014 (Photo by Celine Dyer)

### Feedback from the tablet training

- Need more time for the training as there was a few participants who were unsure of some aspects of tablet usage.
- Sharing tablets with other people is not ideal as people had to wait a long time before their turn comes.
- There should be another follow-up workshop for the Rauti Para to keep their brains active.
- Young individuals should not be included in the Rauti Para training, as the focus of the project is on seniors.
- The training is very useful for the Rauti Para to communicate with families and friends overseas.

#### Feedback from the interviews & survey

- Changes are more evident in the marine environment than on land.
- Loss of plant species on land are more to do with wild animals and depopulation.
- Introduced Acacia trees are a problem as they are taking over fertile agricultural land.
- Fruiting trees that normally fruit between November and March are now fruiting up to June/July.
- Changes in the state of the marine environment have affected the social activities of women and children.
- Shark numbers have increased and are becoming a nuisance to fishermen.
- Fish numbers are less, in particular tuna, with smaller sizes being caught.
- Fish recruitment during summer months are less frequent.

#### Feedback from climate change awareness presentations

- More climate change awareness presentations are needed in the Pa Enua and must be conducted in Maori.
- More awareness is needed for our people to understand these issues so they can act on them.

- The more these messages are heard, the more they will stick in peoples' minds.
- Workshop presentation is the best mode of delivering messages so that people can ask questions.

## Team feedback

- The SRIC Focal Point Ms Eimoana Taia did a fantastic job with making all arrangements.
- The people were arriving an hour early to the training and presentations.
- The people were excited to hear about new information and proud of Dr Rongo for presenting in Maori.
- Mauke teachers were disappointed they did not get an opportunity to hear Dr Rongo's presentations.
- The Telecom officer will allocate a space for the Rauti Para to use the tablets left behind.

### Recommendations

A follow up workshop for the Rauti Para in the Pa Enua would be ideal as well as climate change awareness programs in Maori.

## Considerations

To consider the complaints regarding the acacia plants as it is taking over fertile agricultural land and the farmers don't have the resources to deal with them.

## Conclusion

The support, enthusiasm and energy of the people in Mauke was overwhelming as the old and young came together for the training and to listen to the climate change awareness presentations. Training and up-skilling our seniors on technology devices is valuable for the integration of traditional knowledge with modern technology, and this opportunity should be extended to the Northern Group residents as well.



Photo opportunity for some of the older Rauti Para in Mauke after at the closing ceremony; 11 April 2014 (Photo by Celine Dyer)

#### Acknowledgements

We extend our sincere gratitude to the SRIC Focal Point Ms Eimoana Taia and the island Executive Officer Mr Taukea Raui for a fantastic turnout to the workshop and climate change awareness presentations in Mauke. A big thank you to Frances Taoro for providing the catering for the workshop, and also to our hosts Moumou and Ngatuaine Moetaua & associates for their exceptional hospitality. We thank the Deputy Mayor Samuel Ariki and the Orometuas, and particularly we thank the Rauti Para of Mauke for coming out with great enthusiasm to support the project. To all those whom we interviewed, we thank you all for your time and contributions. Finally, a big Meitaki Ranuinui to the Mauke Island Council and Mayor for giving us this time on the island. Thank you all and God Bless!



The Mauke Rauti Para team; Dr Teina Rongo, Mitchell Tutangata, Celine Dyer, Ted Nia and Upoko Keu 11 April 2014

#### References

- 1. <u>http://en.mapatlas.org/Cook%20Islands/Island/Mauke/208/3D\_earth\_map</u> accessed 21 April 2014
- 2. Cook Islands Government, Census Report 2011, Statistics Office, Ministry of Finance and Economic Management

## **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 participants names.

Name		Age
1.	June Hosking	52
2.	Andrew Hosking	51
3.	Akerongo Teatai	51
4.	Mipapa Enua	58
5.	Tata Aberahama	63
6.	Aerenga Moumouia	73
7.	Angie Samuela	69
8.	Moumou Moetaua	59
9.	Rouru Tura	58
10.	Mareta Tearikiaua	69
11.	Ake Raui	64
12.	Puna Tararo	74
13.	Rev. Harry Rongo	52
14.	Vainetunganga Tua	69
15.	Joan Taripo	50
16.	Metua Tararo	58
17.	Sam Ivirangi	52
18.	Temakave Tua	66
19.	Mapu Taia	75
20.	Moeroa Taia	78
21.	Metua Tereia	83
22.	Teariki Teao	67
23.	Tuatara Purea	83
24.	Tekura Purea	83
25.	Nane Oaariki	66
26.	Rev. Panu Rouru	54
27.	Teina Enua	62
28.	Tangata Ateriano	56
29.	Vainetutai Samuela	63
30.	Metua Taurarii	65
31.	Tuaine Moekaa	40
32.	Gardenia Moetaua	19
33.	James Taoro	16
34.	Martha Mareta	26
35.	Katrina Shane	17
36.	Trina Oti	18
37.	Chrissy Oaariki	15
38.	Teokotai Ngaiorae	45
39.	Tuakana Moetaua	41
40.	Clem Vainetutai	55
41.	Edwin Ngariki	56
42.	Terepai Tuakana	54
43.	Kuparongo Tararo	20
44.	Vaine Oti	39
45.	Josephine Ivirangi	50
46.	Basilio Kaokao	54
47.	Dorothy Moetaua	41
48.	Tuaine Akamoeau	39
49.	Marcellino Akamoeau	40
50.	Dennis Tararo	40
51.	Ngatuaine Moetaua	60
52.	Teokotai George	37