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Climate Change Cook Islands

Office of the Prime Minister



Climate Change and Disaster Risk Platform

Meeting 17 June

The second Platform meeting for the year was held on Friday 17th June at the Cook Islands National Council of Women headquarters in Tauae. Nearly forty people made up of 28 females and 12 males were present from various government agencies, community organisations and private sector.

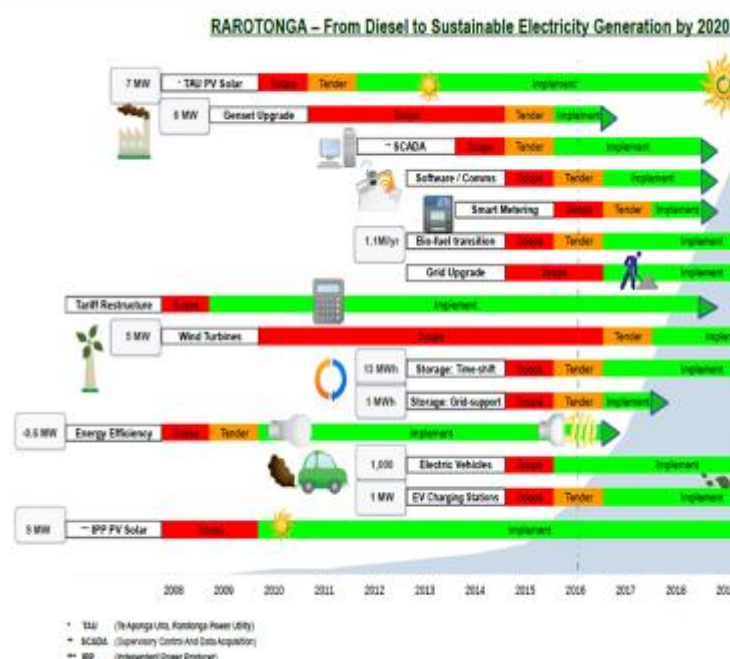
Considering that the new Cook Islands National Sustainable Development Plan (NSDP) was launched the previous day on Thursday 16th, it was timely to hear a presentation on the new NSDP. Unlike the previous two NSDPs containing eight goals the new NSDP 2016 – 2020 focuses on sixteen strategic areas; welfare and equity, economy and employment, waste management, water and sanitation, infrastructure and ICT, transport and energy, health, education, gender and the vulnerable, agriculture and food security, environment and biodiversity, ocean, lagoon and marine resources, resilience and climate change, culture, population, and good governance law and order. Another new addition was a scorecard to monitor the implementation of the NSDP.

The Third National Communications (TNatCom) is progressing on target with working group meetings held over the last few days after the inception at the Brilliant Resilient workshop. There is good community interest and enthusiasm to be involved in the various working groups. The last NatCom reported the energy sector as the highest ghg contributor of 79% made up of electricity and transport 34% and 33% respectively. The aim is to have an inclusive Cook Islands document rather than just another government document.

The Inter-governmental Panel on climate change (IPCC) meeting recently held in Fiji reemphasised the urgency for countries to act now in order to keep industrial global temperature levels to 1.5degreesC. To achieve this target all countries have to ambitiously contribute

to act now even to mitigate already warming will take another 30 years to achieve global neutrality. A 1.5degrees cap reduces the remaining carbon budget for the 21st century to almost half that of the 2degrees path and only the 1.5degrees path can make it likely the world will achieve the 2C. In this regard prompt action is required from a collective global effort. Carbon emission will need to become negative at a global scale. The experience of extreme conditions at current level will be doubled under the 2degrees path, threatening eco systems, food security and human existence. Therefore, a global effort is a must!.

Te Aponga Uira (TAU) current contribution from renewable energy on Rarotonga is 16% and targeting to increase this to 40% by 2018. In order to achieve the government's renewable energy goal of 100% by 2020, private sector on Rarotonga has been involved by constructing solar farms around the island. For Rarotonga alone future energy supply will likely come from various sources besides solar, these are likely bio fuel and wind energy. Rarotonga's grid has reached its limit of connected unrestrained generation at 3.3MW. Additional renewables will require investments in grid support assets to maintain reliability. TAU is aiming for a centralised energy efficient system fed in from different energy sources to sustain energy demands on Rarotonga at all levels. Future initiatives include installing EV charging stations to accommodate electric vehicle transition, support grid for wind turbine and bio fuel energy. All these future developments will require public private investments. (below flow chart TAU plan)



(Slide provided by Dallas Young, TAU, June 2016)

Kura Tauī'anga Reva

Another initiative TAU is working on Rarotonga is the controlling of interconnection of smart metering which will enable customers to check their energy usage. (Watch this space for more updates from TAU).

In 2011 Penryhn Island was identified as the site to pilot the USP EU GCCA project. The project is in its 5th year. An outcome of the project was a V & A community based methodology which identified water security and coastal protection as the two imminent threats from climate change. The situation on Tetautua village across the lagoon is more prominent and would require extensive work with the injection of more funding. As a way forward the island sustainable development plan is aligned with the government budget process to ensure the momentum continues. Despite the inevitable threat of sea level rise, the people of Penryhn is not contemplating relocation.



Penryhn island, another king tide is a regular sight (Photo by CC team 2015)

The Green Climate Fund (GCF) was established in 2011 by countries who are members of the United Nations Framework Convention on Climate Change (UNFCCC). It was established to address mitigation and adaptation actions. The Cook Islands National Designated Authority is Ana Tiraa, Director of Climate Change Cook Islands. Ewan's role as consultant is to build the capacity of the climate change team to provide advice and services to communities about the fund in the Cook Islands. Areas being developed are; resource materials which will be translated in Maori to simplify understanding of the GCF. The team is currently drafting a 2nd readiness support proposal to develop strategic frameworks for engagement with the Fund, including the preparation of a country programme and supporting the process of accreditation for the Ministry of Finance and Economic Management (MFEM). The recent Brilliant Resilient workshop generated a huge

list of potential projects for GCF funds for future considerations.

Mauke water scoping exercise was carried out to determine the status of the water infrastructure or conditional assessment, consumption rate and future requirements. The exercise proved valuable as it enabled to predict future water management about supply and demand levels on Mauke. It also provided useful information on the significance of maintenance to these investments. Data gathered from regular monitoring will assist to future- proof the design of water infrastructure. Based on the analysis it was encouraging to know that the water table in Mauke is recharging and consumer water usage per person per day has gradually declined due to water awareness initiatives in the communities.

Infrastructure Condition



Figure 6 L: Leaky joint inadequately repaired at Mokoero station. C: Moss growth at the b... R: Moss growth at the piping joint at MUK-4A.



Figure 16 L: The Angiagi tank had no stand. C: The Tinokura station did not ha... R: The Vaimutu tank did not have a proper outlet attached to it.

(slide by Roanna Salunga, Water Engineer, May 2016, OPM)

The pearl monitoring project in Manihiki implemented by MMR in 2015 under the SPC EU GCCA; PSIS programme ended funding at the end of the year, and was this year picked up by the SRIC CC Adaptation Fund. Under the project, water quality monitoring is carried out and reported regularly to the pearl farmers on Manihiki so they can stratify their farming activities. From December 2015 to June 2016 water temperatures were consistently in the 30 degrees but seem to be decreasing at the moment. Due to the high water temperature in the lagoon in Manihiki, some coral bleaching were seen in the lagoon and more serious bleaching in the outer reef area. Many corals were seen to be brilliant white in colour, but, it is hoped

Kura Tauī'anga Reva

with the water temperature decreasing they may recover. Paua bleaching was also noticed in Manihiki, but hopeful that they will also recover as water temperature cools down. Current reports from Manihiki on paua recovery seems positive.

The research farm is at the harvest stage. This consists of two different cleaning methods plus a control. The two different methods experimented on were monthly under water scrubbing vs chipping six monthly and the control with nothing done at all. All three conditions were also under different grow-out periods of 12 months, 18 months and 24 months. Pearls from farm 1 was harvested in September 2015 and farm two harvested in March 2016. The control will be harvested in September 2016. Pearls harvested from farms 1 and 2 are currently with the Cook Islands Pearl Authority for assessment. Hopefully we will receive the results before the next platform meeting in September.

The major objective of the Climate Change and Health Plan 2013 - 2016 was to prevent and control transmission of vector borne diseases such as dengue fever, zika, chikungunya and other problems associated with insects and pests. A big component of the project required upgraded equipment that is environmentally friendly to support the program. Under this project the Ministry of Health was able to purchase new equipment transforming from fossil fuel to electric misters that operates on battery charged on a normal power point. The mister is deemed environmentally friendly whilst also low on noise pollution. The ten inhabited islands will each receive a mister. The tv screen at the arrival area at the airport is operating with no sound only with the captions. Operation namu was also funded under the project to clear mosquito breeding areas on Rarotonga. Over 400 bags of rubbish were collected from the sites. Since March this year there has been no report of dengue fever, zika or chikungunya in the Cook Islands.

EU Pac-TVET stands for European Union Pacific Technical and Vocational Education and Training on Energy Sustainability and Climate Change Adaptation. Three delegates from the Cook Islands attended the workshop held in May, Nadi, Fiji. The intention of the workshop was to develop and implement benchmarks, competency standards, courses, and to create a pool of trainers. The Cook Islands Tertiary Training Institute was tasked with establishing basic safety and operational training for solar energy systems in the Cook Islands. A small working group has been established to develop an implementation plan to fit

the Cook Islands context. Liaison person assigned to the Cook Islands will visit in July to advance discussions on the implementation of the project. It is anticipated that qualifications in sustainable energy and climate change adaptation will be available next year 2017.

The Pacific Islands Climate Change Women's Negotiations Workshop was held in Suva, Fiji 6-9th June with women from ten Pacific Islands attending. Mel Tuiravakai from Climate Change Cook Islands was nominated as the Cook Islands delegate to attend the workshop. According to Mel, the workshop proved valuable to participants as they learned how to navigate the UNFCCC systems, the science of climate change, principles of effective negotiations with simulations sessions to build practical experience on regional and bilateral meetings. Mel count herself one of the fortunate ones to have attended the workshop because it was the right direction to a career path for her. The workshop was co-jointly organised by the Australian National University, Pacific Islands Forum Secretariat and supported by the Australian Federal Government, Department of Foreign Affairs and Trade.



Group photo of participants and facilitators 6-9th June (Photo provided by Mel Tuiravakai).

This second quarter was a very busy one for the SRIC CC Adaptation Fund programme as it witnessed the completion of several projects with others still in the construction phase while others are starting up. Manihiki Island hydroponics on the two villages were completed and blessed by the communities, the Nassau school project was also completed. Work on other projects in the other islands are progressing well. The delays appears to be the limited cargo space on the boat as well as the boat schedule pushing back completion dates. The marorotu workshop project by the Mitiaro students is well on the way with the pre-fabrication of ten canoes on schedule for delivery to Mitiaro Island in time for the workshop in July. The Mangaia Island agriculture project is flourishing and flying. The key to the success of the SRIC CC projects on each island can be attributed to the strengths of the

Kura Tauī'anga Reva

Focal Points, indeed, working from the climate change office in Rarotonga have proved valuable.



Final day of the 3D modelling workshop 17 June Aroa Nui Hall

3D Modelling Workshop

SRIC CC Adaptation Fund provided assistance to host the workshop in Arorangi which was lead by the National Environment Services (NES). The week long workshop saw the community come together and work on developing the model based on their knowledge of their local area. What transpired from the workshop is the model (pictured above) with happy participants. Ms Mii Matamaki from NES who was in charge of the workshop commended the people of Arorangi for forthcoming at the workshop. She was happy with the outcome of the workshop and with the enthusiasm of the participants. The model will allow for better future planning for the village.



Raurau Akamatutu Basket of Resilience

The Raurau Akamatutu project by SRIC CC Adaptation Fund with sponsorship from Bank South Pacific BSP, kicked off in pilot mode on Mangaia Island on Monday 27th June. Climate Change Cook Islands Director, Ana Tiraa and her team, Celine Dyer & Melina Tuiravakai, with facilitators, Rangi Mitaera-Johnson, Josie Rattle-Wichman and video photographer Johnny Beasley from Varo Media kicked off the Raurau Akamatutu Workshop in Mangaia with 31 participants. The workshop was opened by the Mayor of Mangaia Mr Teremoana Atariki. The workshop encouraged

participants to be resilient and adaptable with Climate Change, exchange ideas of traditional food preservation practices, Impacts of climate change on food security, water, health, agriculture and fishing practices. Participants were in awe of the many delicious, healthy and simple dishes whipped up by Cook Islands Chefs Rangi Mitaera-Johnson and Josie Rattle-Wichman who showcased how to make delicious meals using locally grown fresh produce in innovative ways from taro mince patties, pawpaw & star fruit salsa, and coconut, chilli and green onion sauce amongst others.



Young and old working together on a group activity, photo by Melina Tuiravakai.

Hygienic food preparations, traditional foods vs alternative ways of preparing foods, with group activities and displaying locally grown produce broccoli, cabbages, star fruit, pawpaw, green onions, chilies, tomatoes and taro. Produce for the workshop was provided by the youth of the Mangaia Growers & Livestock Association Incorporated, a SRIC Adaptation Fund project on Mangaia.



Kura Tauī'anga Reva

MANGLIA youth showcasing their produce 28 June

Participants were energized and passionate about what they learned from the workshop. At the final team debrief session, Rourumarū Papatua of Oneroa said “that this workshop has increased my understanding about the impacts of climate change in our lives and encouraged me to be more creative and use local ingredients in the food that I make and sell at the market in Mangaia.”

On the final day of the workshop there were 42 participants who turned up, an additional 11 from the first day of 31. The island Executive Officer commented that usually as days go by attendance dwindles, but this workshop has increased numbers, so it must be exciting and interesting stuff for people wanting to come.



Group photo 30th June (Photo by Ana Tiraa)



Group photo with yr 10 students who joined the workshop



An area view of one of the vegetable gardens managed by the young people under the SRIC Adaptation Fund Programme.



Chef Rangi Mitaera-Johnson in action (Photo by Mel Tuiravakai)



Chef Josie Rattle-Wichman demonstrating simple dishes from locally grown produce (Photo by Mel Tuiravakai)

Kura-Kuriri

The combined marorotu raurau akamatutu workshop will be in Mitiaro from 11 – 15th July.

Till next time – Kia Manuia!