

July Issue # 29 Climate Change Cook Islands Office of the Prime Minister

Researching Climate Change and Migration

Research is currently being undertaken by Tina Newport from Rarotonga (Ngati Tamakeu, Ngati Te Tika) which examines the impacts of climate change that can result in people moving away from their homes, villages and livelihoods. People may move away from their islands and the country for a short time but may also decide to move permanently. Such movement has implications for the Cook Islands in protecting its future and people. This is especially so if whole communities and businesses are forced to move away from coastal areas and their islands. In addition, climate change displaced people from other Pacific countries may wish to move to the Cook Islands. As part of her PhD study, Tina is observing and talking to people involved in the Cook Islands climate change and migration policy spaces and processes. This includes talking to government officials, civil society leaders, donors and other country representatives. If you would like to know more about this study you can contact Tina on +682 22226 or +682 58131 or by email cnew839@aucklanduni.ac.nz. Tina will give an update of her study at the next platform meeting in September.

Mitiaro Data Gathering Mission



Team from Rarotonga consisting of EMCI, ICI and Red Cross with Mitiaro students who assisted with the project 1-5 June 2015

Emergency Management Cook Islands
(EMCI), Red Cross and Infrastructure Cook Islands

(ICI) along with Mitiaro Administration office and Mitiaro College students embarked on a disaster-risk-reduction survey exercise on the island of Mitiaro from the 1st to the 5th of June. The purpose of this trip was to enhance the Cook Islands Geo Portal's informative capabilities of the island. This was by way of gathering disaster-risk-reduction-type spatial data using survey forms and modern technology – online database system (internet), android device. Examples of data collected is the number of vulnerable citizens (disabled, special needs, solo parents) per household, vulnerable buildings, sanitation and water-storage. EMCI&ICI would like to thank the Mitiaro Administration, Community and Students in carrying out household surveys. Much was achieved in a short period. Information collected will be incorporated in the existing Geo-Portal database system to assist EMCI or government in making better decisions during a disaster on Mitiaro - *by Mana Etches*



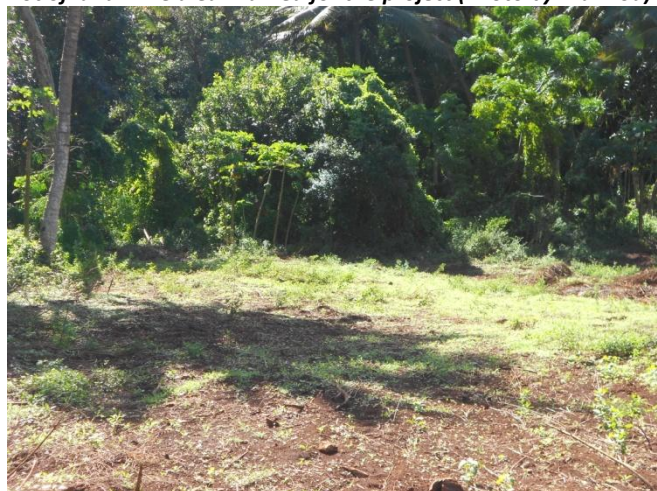
Mana Etches showing students to input data into the Geo-Portal 1-5 June 2015 (Photos by Mana Etches)

SRIC - Mangaia Island Agriculture Project

Mangaia island is set on realising its potential in agriculture as another of the SRIC projects under the Adaptation Fund. Four sites spread around the island has been identified that will be used to roll out the project. Mr Makiroa Beniamina of Mangaia will manage the project with funding from SRIC. The project is already at the second phase of acquiring machinery for preparing the land for planting. A rotary two wheel tractor has been purchased to toil the land with planting to commence at the end of August. The other two sites are in Tamarua and Ivirua, to which Mr Beniamina is confident that planting will commence in August.



Plot of land in Keia earmarked for the project (Photo by Makiroa)



Plot of land in Oneroa cleared and ready for the project (Photo by Makiroa)

They hope to cultivate cabbage, broccoli, cauliflower and tomatoes with the excess earmarked to hit the Rarotonga market by the end of November early December. Farmers in Mangaia are geared up to turning the local economy around to the heydays when Mangaia was central as an agricultural producer in the Cook Islands. SRIC is committed to supporting agriculture to ensure food security.



Vegetable garden in Mangaia (Photo by Makiroa Beniamina)

The Green Climate Fund (GCF)

The GCF was established at the Conference of the Parties (COP 16) as an operating entity of the Financial Mechanism of the United Nations Framework Convention on Climate Change (UNFCCC) otherwise known as the Convention.

There are 196 countries who are Parties to the Convention (COP) including the Cook Islands who signed up in 1992.

The fund is governed by the GCF Board consisting of 24 members from developed and developing countries and is accountable to the COP.

GCF is hosted in Songdo, Incheon, the Republic of Korea and is administered by the World Bank that serves as the interim trustee to carry out the decisions of the GCF Board.

The purpose of the GCF is to support low-emission (mitigation) and climate-resilient (adaptation) investments in developing countries in order to achieve a significant and ambitious contribution to combat climate change.

The fund will finance project and programme proposals that contributes to achieving the goals of our National Sustainable Development Plan in addressing the adverse impacts of climate change.

Particularly in areas to reduce emissions from, energy generation and access, transport, forests and land use, buildings, cities, industries and appliances. And equally, to finance projects and programmes committed to increased resilience in health, food and water security, the livelihoods of people and communities, ecosystems and ecosystem services as well as infrastructure and built environment.

There is currently USD10.2 billion in the fund making it the largest climate change fund.

Government ministries, the private sector and non-government organisations (NGOs) are eligible to apply for the GCF.

Climate Change Cook Islands of the Office of the Prime Minister is the National Designated Authority (NDA) or focal point of the GCF in Cook Islands and is currently engaged in the preparatory stages of the

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readiness exercise in order to expedite access to the GCF.

For more information on the GCF and for updates please send a message to the Climate Change team; ana.tiraa@cookislands.gov.ck or celine.dyer@cookislands.gov.ck

Northern Group Senior Students Workshop

Aronga Mana (Traditional leaders) of Puaikura welcomed the students to their *paepae* (Jurisdiction) with a *turou* (traditional welcome) by Kaina Mataiapo as the Kaumaiti Tou Ariki and Tinomana Ariki led the students to the workshop venue.



Mia Teaurima with the Aronga Mana leading the students

In his opening address the Kaumaiti challenged the students to listen and learn from the experts but to also question relevancy of information to their specific situations and particular islands. He also reminded the students of the important role traditional and local knowledge play today as we strive to adapt to the adverse impacts of climate change which is not our making.



Workshop venue, Raratongan Resort conference room

The objective of the workshop was to give the Northern Group students the opportunity - to build their awareness on issues relating to climate change, develop their research skills and to capture interest in the various disciplines involved as potential career paths. The intention was to take students through the stages of proposal development based on the SRIC proposal template. Output of the workshop was to produce a concept proposal tailored to addressing a specific issue or area likely to be threatened or already impacted by climate change on their respective islands. This involved students talking to the leaders on their islands, researching and collating background information about their islands.



Teava Iro explaining composting (Photo by Celine Dyer) 28 July Program included site visits to various organisations such as the composting unit based at Papaaroa, a private entity by Teava Iro. Composting was considered a more viable and sustainable method of planting which is proven by Pukapukans who has been practicing it for decades.



Paul Maoate explaining the climate proofing of Avatiu Harbour Since each of these islands depend on their harbours or passage for supplies and transport this exposure introduces students to different adaptation measures

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carried out on Rarotonga and what is being done by government and private people. Reiterating that adaptation to climate change is not only government's responsibility but everyone's business.



Students on a boat ride sponsored by Te Ipukarea Society (TIS) (Photo by Celine Dyer)

Students were treated to a boat ride to which Dr Rongo covered a range of topics to supplement what they learned in previous lectures at the workshop. These included the influence of land-based activities on the ocean, ocean acidification, atoll and volcanic island formation, and the importance of reefs as natural barriers to the impact of cyclonic waves. Field trips included the Meteorological Office where staff explained the process of collecting, collating and interpreting data to produce weather forecasts.



Met Office staff showing students the rain gage (Photo by Celine Dyer)

In the course of four days the students with the help of their teachers worked on their proposals. There were also fun activities to which students created and performed a drama about their chosen project or a song. The Penryhn students were quick to catch on with climate change to which they performed different human activities that cause detrimental impacts on the environment. Rakahanga students without a teacher depicted the actions of humans that cause problems to fish migration and breeding places.



Penryhn students with their teacher performing a song
Students from Palmerston Island presented their drama about boats throwing their anchor on the reef and causing damage to their reef and ecosystems.



Palmerston students performing a song after their drama
Experts from different disciplines spoke on; Geo-Portal, GIS mapping and Seabed Mining.



Marino Wichman from Seabed Minerals engaging students

The climate change team worked with the schools to help them identify climate change related projects pertinent to their respective island as their proposal

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to the SRIC programme. The SRIC programme under the Adaptation Fund funded the workshop with the understanding that successful project proposals will receive funding for implementation.

Outcome



Penrhyn students with teacher Poti Maeva far right and SRIC Focal Point Thomas Taime

Penrhyn school proposed to keep their *Pitaka* environment a pristine nesting and resting place for turtles through embarking on tree planting on motus where turtles congregate to lay their eggs. Creating a safe heaven for turtles through *raui* and tree planting will add to strengthen the recovery ability of the local systems against intense events of climate change.



Rakahanga students with their teacher Ross

Rakahanga school chose to redesign and open up their fish pond that was closed off. A few years ago the Island Council build a causeway across the pond blocking the water channel and access to the pond by certain fish species who regularly return to spawn in the pond. It is also causing salt water inundation to the taro swamps around the pond as the water has nowhere to escape. The project will address food security, habitat and biodiversity protection.



Nassau students with teacher Poila Poila

Nassau school chose to address food security by the construction of a drainage system in the taro swamp to prevent flooding during heavy rainfalls that damage the taro crops. They also want to fence the planting area to keep animals away from damaging crops. Protecting planting areas of communities is assuring food security in the face of climate change whilst also ensuring sustainable livelihoods of communities.



Manihiki students

Cyclone *Matini* that devastated their island particularly the village of Tauhunu, prompted the Manihiki school to embark on tree planting. They wanted to plant Pacific Mahogany *tamanu* following the example of Palmerston island situated in the hurricane path and yet unscathed. *Tamanu* tree was chosen because of its root system that goes deep into the ground to hold the soil. The tree is also big when fully grown and will act as a defence barrier to break wind and wave actions. With the expectation of more intense cyclones due to climate change, the project will strengthen the resilience of the island system against intense events thus enhancing safety of communities.

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Palmerston students with teacher Marconi Marsters back right
Lucky school of Palmerston proposed to install a mooring beyond the reef for anchoring boats. This will prevent further damage to the reef and ecosystems from the heavy weight of boat anchors thrown in the water. The mooring will be a permanent structure where boats will attach to, rather than throwing an anchor. Protection of the natural defence systems and ecosystems is strengthening their ability to be resilient to climate change.



Pukapuka students with teachers James Katoa left and Yani Zape
Niua school opted to ensure food security as a means to strengthening the resilience of their island communities to climate change. Due to sea level rise and heavy rains the taro plantations are hit with two different impacts they have to deal with. Hence, the drainage will be designed in a manner that prevents salt water inundation but also allows for drainage from heavy downpours.

The students presented their proposals to invited guests including the Prime Minister and his wife. In responding, the Prime Minister encouraged the



Prime Minister Henry Puna addressing the students 31 July 2015
students to utilise local resources which are better suited to their environment rather than introducing foreign elements. He also congratulated the students for their efforts and vision and all those agencies who supported the workshop. He also reassured the students that the government has agreed to extend the jurisdiction of Marae Moana to include the Northern Group islands.

Programme Manager of SRIC Mr William Tuivaga closed the workshop. He thanked all the schools, principals and teachers of the Northern Group, including their Mayors and EOs, the Ministry of Education, Te Ipukarea Society and all agencies involved with the workshop. Finally, the Adaptation Fund through UNDP for providing the funds to host the workshop. ***Ata wai wolo meitaki poria korereka!***

Kura Kuriri

The Penryhn SRIC Focal Point Thomas Taime is currently working with the SRIC team and undergoing some training.

Pua Tetava the SRIC Focal Point of Mitiaro is also working with the SRIC team to develop a proposal for Mitiaro.

Mia Teaurima is off to Mangaia to overlook the agriculture project and water assessment on Mitiaro with engineer Ben Parakoti.

Till Next Time - KIA MANUIA!

