

August Issue #7 2013 Climate Change Cook Islands Office of the Prime Minister

Joint Cook Islands Disaster Risk Reduction & Climate Change Adaptation Platform 13 August 2013



Ana Tiraa Director Climate Change Cook Islands presenting the C & DCD policy at the platform dialogue (Picture by Celine Dyer)

The platform serves as an opportunity to share, listen, question and participate in discussions on climate change and disaster risk reduction issues. It is an open door assembling for interested parties and individuals and held every quarter. Those involved with climate change and disaster risk projects are asked to give presentations and report on activities happening in the Cook Islands and at the regional and international levels. The platform is also an avenue for government to hear and discuss the views of NGOs, private sector and the community. Anyone interested to attend any of the platform meetings can contact the climate change division at the Office of the Prime Minister for meeting schedule.

Tsunami Inundation Modelling Training course 6-9 August

Participants from emergency services on Rarotonga and the Pa Enua gathered at the Edgewater Resort from 6 – 9 August for the Tsunami Inundation Modelling training. The training workshop is part of the early warning systems project being developed and promoted by the Meteorological Office and Emergency Management Cook Islands funded by the Australian Meteorological Office. Community Modelling Interface for Tsunamis (ComMIT) is a web-based community tsunami model. With increased

interest and concern underlining tsunamis forecasting, modelling and deep-ocean measurements are crucial to any tsunami warning systems. Fortunately for the Pacific, deep-ocean sea-level observations from tsunameters is freely available on the network with contributions from the US, Australia and Chile. Participants at the workshop underwent hands on training on the ComMIT model and learned to install and run the system on their laptops. Another follow up workshop on geo portal will be held in early September that will further enhance participants understanding on the connectivity of the two programs.



Participants at the Tsunami Inundation Modelling workshop at Edgewater Resort 6 August 2013 (Picture by Celine Dyer).

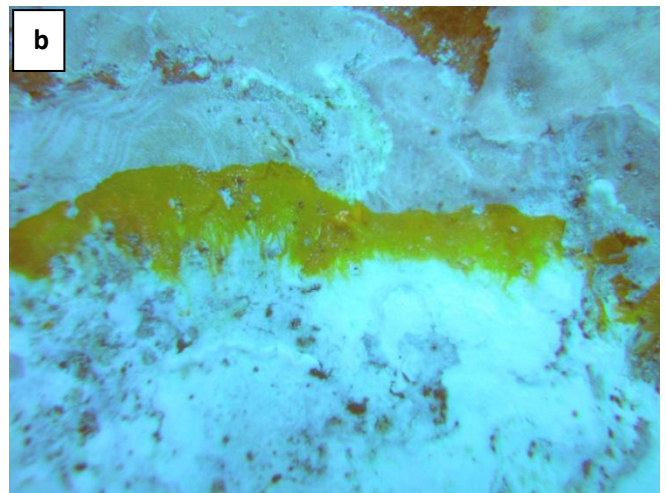
Marine park expedition 24 July – 10 August 2013



Healthy coral reef on the reef slopes of Mitiaro (Picture by Dr Teina Rongo)

According to Dr Rongo the research expedition to the islands of Aitutaki, Manuae, Mitiaro Takutea, and Atiu proved valuable as the team were able to observe and collect data on reef fish communities, reef benthos, and other invertebrates

to determine the health of these reefs. For some islands (i.e., Mitiaro, Atiu, and Takutea), the survey will provide a baseline report for future reference. The team noted that with the exception of Aitutaki, all reefs surveyed are well on the way to recovery. For example, Manuae's coral cover has increased by more 30percent when compared to a survey conducted in 2005. Interestingly, when compared with Rarotonga and Aitutaki the number of herbivorous fishes (both in terms of species and abundance) were lower on the other islands surveyed. According to Dr Rongo, this may explain the low incidence of ciguatera poisonings on these islands as herbivorous fishes are responsible for up-taking the toxin into the food-web. The forereef of Mitiaro was amazing with coral cover reaching 100percent cover in some areas. Magnificent platy coral growth of a single species (*Astreopora expansa*) were common on the reef slopes (see picture above), with some coral species that are not recorded in Rarotonga. Although *taramea* outbreaks, cyclones, and perhaps coral bleaching are the main disturbances that influence the fate of coral reefs in the southern Cook Islands, there is a concern that coral reef diseases may also become a problem, says Dr. Rongo. The team noted that an extensive area on the leeward exposure of Manuae was severely degraded by what appeared to be a "yellow band disease" (see picture [a] below). The other disease reported by the team was the "coralline lethal orange disease" in Aitutaki (see picture [b] below). Because coralline algae play an important role in cementing together much of the sand, dead corals, and debris on reefs, to create a stable substrate and facilitate the recruitment of corals and other reefs organisms, such disease can potentially have a significant impact on the recovery of these reefs.



(a) Diseased coral species (*Asastreopora expansa*) on Manuae (Picture by Dr. Teina Rongo); (b) Coralline Lethal Orange Disease with the orange band indicating active area of disease (bottom half is dead and the top half is live tissue) (Picture by Dr. Mareike Seduk).

While reefs in the southernmost islands are recovering, those on the northernmost islands are being degraded by *taramea* outbreaks and disease, says Dr. Rongo. However, Dr. Rongo noted that the close proximity and the high degree of similarity in reef communities among these islands would suggest good connectivity; connectivity among these islands is critical when considering the recovery of reefs after a major disturbance event. – by Dr Teina Rongo.

Water tanks proposal for Palmerston, Atiu and Aitutaki



Daryl Rairi of RAIRI Designs signing the contract with Elizabeth Wright-Koteka, Office of the Prime Minister and Willie Tuivaga.

The SRIC CC Adaptation Fund provided funding for infrastructure strengthening on the islands of Palmerston, Atiu and Aitutaki. RAIRI Designs a local company signed the contract with the Office of the Prime Minister on 22 August. The contract is to review the water infrastructure proposal for Palmerston, Atiu and Aitutaki by carrying out a scoping exercise on each of the respective island, analyse the situation and prepare the implementation documents for the project. The project is to supply and install 6,000litre water tanks for each household on the three islands as part of the plan to built community resilience to climate change.

High Level Support Mechanism on Climate Change Inception Workshop – St Lucia 13 -14August 2013

Associate Minister for Environment Services Hon. Atatoa Herman and Mii Matamaki from National Environment Services represented the Cook Islands at this workshop. This particular workshop is a result of shared undertaking by the Least Developed Countries (LDCs) and Small Island Developing States (SIDS) and regional partner institutions with technical support provided by Climate Analytics and Charles & Associates. The purpose is to increase the effectiveness of high-level political representatives with advisers from LDCs and SIDS in the high level segments of the international climate policy negotiations and other relevant climate meetings and fora that require high- level engagement. The aim is to create a support mechanism for high-level

representatives that are demand driven, responsive to ongoing needs and firmly rooted in the respective regions.

Cook Islands delegates to the meeting supported Climate Analytics and Charles & Associates to provide such High-Level Support Mechanisms for LDCs and SIDS. They also recommended for the Cook Islands to request assistance from Climate Analytics and Charles & Associates in preparation for climate change negotiations and to collaborate with regional partners such as SPREP to influence the international climate fora to achieve the best outcome for the Pacific and Cook Islands. – **by Mii Matamaki.**

First Open Discussion Workshop about Climate Engineering: Perspectives from Pacific Small Island States 21 – 23 August 2013.



Cook Islands was represented at this workshop by Ana Tiraa Director of Climate Change Cook Islands. Climate change engineering or geo-engineering is gaining interest and attention on the science agenda as a possible alternative to mitigate climate change by the use of technologies to intervene with the natural climate process. There are two common areas of study; Carbon Dioxide Removal (CDR) methods which attempt to absorb and store carbon from the atmosphere, either by technological means, or by enhancing the storage through natural ecosystems, and Solar Radiation Management (SRM, also known as Sunlight Reflection Methods) which aims to reduce temperatures by reflecting sunlight back into space, either by increasing the reflectivity of the earth's surfaces, or by deploying a layer of reflective particles in the atmosphere,

or by making clouds more reflective. However, in spite of this new knowledge and technologies there is still a lot of uncertainties and skepticism on the use of science to induce climate conditions.

Participants at the workshop made the following recommendations;

- (1) Intense international mitigation efforts must be the first priority, as it is clearly the safest option;
- (2) The need for more research, awareness and transparent debate about climate engineering;
- (3) that climate engineering technologies should not be implemented until they can be scientifically proven to be a sufficiently safe option for all potentially affected; and
- (4) that regulatory and enforceable governance structures are needed before any significant field testing and implementation is carried out. - **by Ana Tiraa.**

Regional Workshop on promoting International collaboration to facilitate preparation, submission and implementation of NAMAs 13 – 15 August 2013

Alex Henry from Renewable Energy of the Office of the Prime Minister represented the Cook Islands at this Regional workshop. The intentions were to share the experiences of countries with NAMAs in the development, implementation and processes involved with the approval of NAMAs to the Registry and the monitoring of results and verification of each NAMA. NAMA stands for Nationally Appropriate Mitigation Action to which in the Cook Islands, Renewable Energy is responsible for implementing the overall government target of 100 percent renewable energy by 2020. The rationale is to decrease a country's green house gas (GHG) emission. Cook Islands contribution to the workshop included a presentation, chaired one of the discussion groups and also put forward a suggestion to UNFCCC to host a NAMA expo to attract donors and countries in face to face discussions to encourage funding to NAMAs as it was noted that not one NAMA has received any funding to date. The Cook Islands also attracted the attention of the German delegation at the workshop.

Taking it to the community the SPC EU GCCA-SIS Project



People of Manihiki Island gathered for the community consultation (Picture by Teariki Rongo).

Project Manager to the SPC EU GCCA SIS Teariki Rongo embarked on a scoping mission to the Northern Group Islands of Manihiki, Rakahanga, Pukapuka and Mangarongaro in order to determine how the climate change message can reach the communities on these islands – **full report in next issue.**

Kura-Kuriri

Lavinia Tama from Ministry of Finance and Economic Management, Teariki Rongo from Marine Resources and Rob Matapo from SRIC CC are off to the 'Climate Change Adaptation Strategy for SIDS' in Singapore from 9th to 13th September 2013.

Dorothy Solomona from Marine Resources, Dr Teina Rongo from Climate Change and George Turia from MFEM are off to attend the 'Regional Finance Meeting and GCCA: PSIS Steering Committee Meetings' in Tonga from 25 Sept to 1st Oct 2013.

Michelle Foster and Willie Tuivaga from SRIC CC are off to Samoa to attend a UNDP Finance Training and Orientation from the 5th – 14Sept 2013.

Celine Dyer from Climate Change is off to attend the Global Training Workshop on the preparation of biennial update reports in Bonn from 16th – 18th Sept 2013.

Ana Tiraa will be travelling to attend a UNFCCC Expert meeting in Fiji from the 12th – 14th September 2013.

