

# CLIMATE CHANGE MATTERS

Issue 8 — December 2012

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"The Pacific Environment—sustaining our livelihoods and natural heritage in harmony with our cultures"



**SPREP**  
Secretariat of the Pacific Regional  
Environment Programme

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## Director's Note



**Dr Netatua Pelesikoti**

*Climate Change Division Director  
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### Dear Readers

By the time you read this last edition of Climate Change Matters for 2012, the world will have just completed another round of climate change negotiations at the 18 Conference of the Parties (COP) in Doha, Qatar.

COP 18 made a significant impact to reduce green house gas emissions by ensuring a second commitment period for the Kyoto Protocol. The UNFCCC COP is very important to us. This is where resources for our adaptation and mitigation activities are pledged and committed by developed countries. But, like a double-edged sword, it is also the process that alters how every country may cut their green house gas emissions, or continue with business as usual.

Regardless of the Doha outcomes, Pacific Island Countries (PICs) remain limited in their capacity to quickly and efficiently respond to climate change impacts that have devastated our water and food sources and threatened small low lying islands with inundation and erosion. In addition we are always vulnerable to extreme weather events that destroy our vital infrastructure.

The COP negotiations are highly political and complicated. They combine economic and development growth with the need to reduce what drives the growth in developed countries, including large developing economies such as India and China. There is hope though, that a new legally binding accord will be secured by 2015 to come into force by 2020.

Congratulations to the chair of AOSIS, Ambassador Marlene Moses of the Government of Nauru and her team for their fine dedication and exceptional performance at COP 18. SPREP acknowledged with pride that it was one of our very own that led the negotiations on behalf of small islands.

With hope in our hearts, SPREP's Climate Change Division would like to wish you all a Merry Christmas and a prosperous New Year. We look forward to working collaboratively with you in 2013.

'Ofa atu'

## About Us

**SPREP's Climate Change Division (CCD) is made up of three programmes:**

1. Adaptation;
2. Mitigation; and
3. Policy and Science.

The work of the CCD is directed by the SPREP Strategic Plan 2011-2015 based on the climate change priorities of SPREP Members and consistent with the *Pacific Islands Framework for Action on Climate Change 2006-2015* (PIFACC) and other relevant and approved policy drivers such as the Pacific Plan and the Framework for Action on Disaster Risk Management.

**SPREP's three (broad) climate change strategic priorities for 2011-2015 are:**

1. Implementing adaptation measures;
2. Improving members' capacity, knowledge and understanding of climate change, and risk reduction;
3. Contributing to global greenhouse gas reduction

For more information visit our website at:

[www.sprep.org/Climate-Change/climate-change-about-us](http://www.sprep.org/Climate-Change/climate-change-about-us)

## Pacific Islands strengthen their COP18 negotiations

Pacific Island delegations are in Doha this month, attending the 18th Conference of the Parties to the United Nations Framework Convention on Climate Change (November 26th to December 7th).

To assist Pacific Island governments with this meeting, SPREP held a one day preparatory workshop for Pacific representatives, which provided the opportunity for countries to strengthen and build their negotiations positions together.



**Given the importance of climate change to this region, it is inspiring to see the Pacific taking on such lead roles at COP18'.**

Diane McFadzien, SPREP Climate Change Adaptation Advisor



Left: The Pacific COP18 preparatory meeting group  
Above: Chairman, Mr. Albert Williams of Vanuatu

**"The Pacific is really coming into its own, within these climate change negotiations. We have a Pacific country chairing the Alliance of Small Island States (Nauru); and as of next year, Fiji will be taking over the role of Chair of the Group of 77 and China (a group of over 130 developing countries). We also have other Pacific islands taking on leadership roles in these processes, such as Tuvalu as the Chair of the Least Developed Country Expert Group. Given the importance of climate change to this region, it is inspiring to see the Pacific taking on such lead roles."** Diane McFadzien, SPREP Climate Change Adaptation Advisor

### Pacific issues at COP18 include:

The need to adopt an agreement on the 2nd Commitment period of the Kyoto Protocol (as the first commitment period ends on December 31st, 2012)

The need for agreement on an international mechanism to be adopted, which would address the issues of loss and damages from the unavoidable impacts of climate change.

The need to further work on a new international climate change agreement, which would see all countries take action to reduce their emissions to a level which would allow for the long term viability of vulnerable countries like the Pacific

The need to secure additional financial and technical resources, to assist the Pacific to address the impacts of climate change.

For more information, contact Diane McFadzien at [dianem@sprep.com](mailto:dianem@sprep.com)

## Turn Down the Heat – World Bank report on climate change

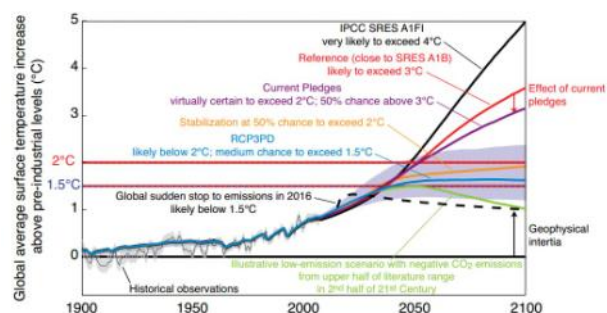
A World Bank report on climate change should indeed shock us all into action.

The report (titled "Turn Down the Heat – Why a 4C Warmer World Must be Avoided") highlights the strong possibility of a 4 degree Celsius increase in global temperature by 2100 and outlines the devastating impacts of this for humanity.

The impacts as outlined in the report may overwhelm island countries of the Pacific and change the face of global society as we know it. A warming of 4 degrees Celsius by the end of the century goes far beyond what Pacific Island Countries have argued as the maximum limits for future temperature increases for the people of our region.

While the report examines a possible sea level rise of one metre, it also highlights that parts of the Pacific (particularly the Western Pacific) have recently experienced rates of sea level rise much faster than the global average. For low lying atolls and islands with economic infrastructure on the coastline, this will result in impacts that are increasingly difficult, if not impossible, to adapt to.

Right: Average temperature predictions to 2100 from the report





## Tokelau becomes World's first 100% solar nation

It may sound unbelievable but right now the entire population of Tokelau is enjoying its electricity from the sun. There is no more polluting diesel being burnt in the country's three power stations anymore.

The Tokelauan people themselves saw the need to be part of the global community in mitigating the build up of greenhouse gases. Now the Tokelau Renewable

Energy Project is providing solar power to more the 1,400 Tokelauans across 3 separate atolls.

SPREP was present at the official launch of this project that will result in a reduction of 940 tonnes of green house gas emissions every year. A new era of renewable energy for Tokelau has begun.



For more information, contact the SPREP Climate Change Mitigation Officer: [nixonk@sprep.com](mailto:nixonk@sprep.com)

*Solar Arrays on Nukunonu Atoll, Tokelau*

## PACC on the seas to Ontong Java for food security

Following vulnerability assessments and a cost benefit analysis at Pacific Adaptation to Climate Change pilot sites at Ontong Java in the Solomon Islands, food security was prioritised.

Now the Ministry of Agriculture & Livestock and the Pacific Adaptation to Climate Change Project Team are leaving for the atolls to demonstrate improved agricultural farming systems and climate resilient crops.



*The Ministry of Agriculture & Livestock (MAL) and Pacific PACC team set sail to Ontong Java*

**'We are looking forward to this trip and providing practical demonstrations for local farmers on the low-lying communities'**

Mr. Jasper Bonie, group team leader

## Community Facilitators Training for PACC Fiji

**'Why would a group of men, women and youth sacrifice their Diwali public holiday to attend a training workshop?'**



*Community Facilitators and PACC Fiji Officials*

They came from the Pacific Adaptation to Climate Change pilot sites in Fiji to undergo Community Facilitator training from 12 to 16 November. These twenty participants obviously understood the importance of engaging and empowering local people to take ownership of development issues that affect them.

They will now take a lead role with support from the Village Headman ("Turaga ni Koro") to collate, disseminate, monitor and report project related activities in their communities.

PACC project sites in Fiji are in the districts of Nakelo and Nuku Districts (Tailevu Province) consisting of 16 villages and Deuba District (Serua Province) made up of 4 villages.

For more information, contact PACC Regional Project Manager: [taiton@sprep.com](mailto:taiton@sprep.com)

The PACC Project consists of 14 member countries; it is implemented by the United Nations Development Programme (UNDP) in partnership with the Secretariat of the Pacific Regional Environment Programme (SPREP). It is funded by the Global Environment Facility (GEF) and the Australian Agency for International Development with support from United Nations Institute for Training and Research (UNITAR) Climate Change Capacity Development (C3D+) Programme.



## SPREP conducts Pacific Climate Change Portal Training Workshop

SPREP conducted the first Pacific Climate Change Portal [www.pacificclimatechange.net](http://www.pacificclimatechange.net) Training Workshop from the 6 to 8 November 2012 at the USP ICT Centre in Suva, Fiji. Countries represented at the training were Cook Islands, Fiji, Kiribati, Samoa, Tonga, Tuvalu and Vanuatu. Also in attendance were representatives from SPC, GIZ and UNDP.

The objectives of the workshop were to test the climate change portal on a small group of users; train designated climate change people to enter and update information on the portal; identify user needs, suggested improvements or additional features for the portal and establish a network of climate change portal editors and users.

The three day workshop took participants through entering and updating information in the portal, in particular, the Pacific Climate Change Projects database (<http://123.176.76.175/project-search>) which is a repository of information on climate change projects in the Pacific region.

For more information please contact Makelesi Gonelevu, Knowledge Management Officer at: [makelesig@sprep.org](mailto:makelesig@sprep.org).



*Workshop participants at USP, Suva*

In addition, participants were taught how to search the USP and SPC libraries for climate change information and were made aware of the importance of the role of the Pacific Solution Exchange in knowledge sharing.

SPREP would like to thank the governments and agencies present for their participation in the training.

## Vanuatu's Traditional Knowledge used for Climate Forecasting and Adaptation

In the Republic of Vanuatu, traditional knowledge has been shown to complement seasonal climate forecasting and adaptation to climate change initiatives. By combining meteorological science-based seasonal forecasts with traditional observations, optimised forecasts become possible.

Traditional weathermen in Vanuatu use local signs and indicators to predict a coming dry season, intense cyclone or prolonged rainy period. For example, certain behaviours of the oceanic Petrel flying close to the islands indicate an upcoming period of strong wind or a shift in the flowering times of a coastal tree species can be used to accurately predict a long dry season.

The government has held successful discussions with the custodians of traditional climate and weather knowledge on Tanna Island in an effort to develop a working partnership that will enable traditional weathermen and leaders to share their knowledge with the rest of Vanuatu and thus prevent its loss in the future.

**'Vanuatu has set a regional precedent in this regard, bringing our tradition, custom and culture to the cutting edge of climate change adaptation'**

Meteorology Director, Jotham Napat



Work on Vanuatu's framework for traditional knowledge on climate and disasters is being supported by the government of Vanuatu, the German funded SPC-GIZ Climate Change Program and the Australian funded Climate and Ocean Support Program for the Pacific.

*(Left) Talking traditional knowledge on Tanna Island, Vanuatu*



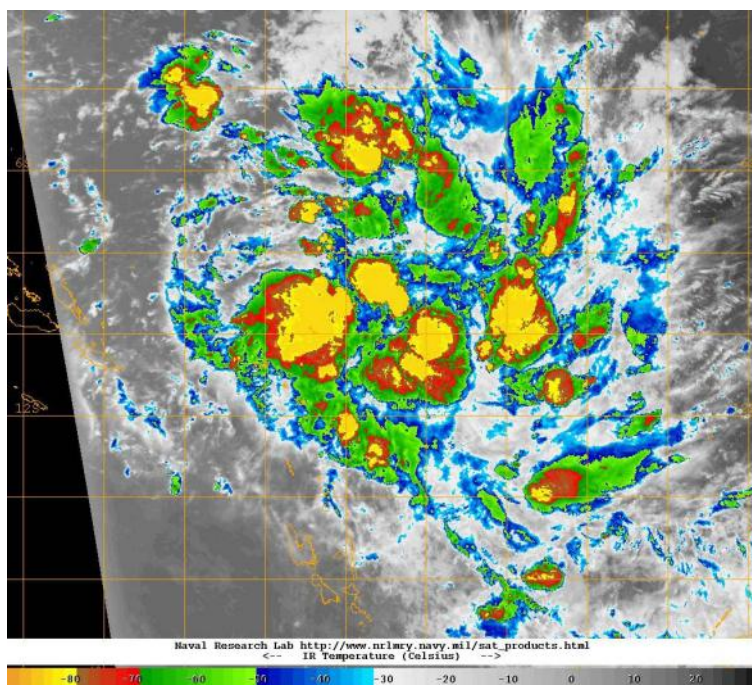
## Weather Outlook

The Pacific remains in a neutral ENSO state, with neither El Nino nor La Nina conditions prevailing. EL Nino like SST warm anomalies over the eastern Pacific along the equator have weakened further last month, and significant warm anomalies are now evident over waters around Nauru, the Solomon Islands and eastern PNG. The likelihood is that near neutral ENSO conditions will persist into the first quarter of 2013.

The most common time for the ENSO signal to change its phase is in the southern autumn (March to May) and any major change to the current ENSO pattern before then is considered unlikely through the summer. Tuvalu, the Gilbert Island archipelago of Kiribati, and Niue, all experienced drier than usual rainfall, while parts of Fiji saw above average rainfall. Nauru has seen quite wet weather in recent weeks. Other parts of the region have experienced rainfall close to average for this time of year.

The intra-seasonal weather patterns have been active also, with the first active Madden Julian wave of the season moving into the western Pacific around the end of the month. While this MJO wave is relatively modest in its intensity, it did initiate a burst of unsettled tropical weather over waters between the equator and 15S latitude from PNG to the date line in the next week or two. Coincident with this we saw the first significant tropical depression of the season develop near northern Vanuatu around the 20th of last month.

Although this system ultimately failed to develop in to a tropical cyclone it did bring some squally winds and heavy rain to Vanuatu and Fiji late last month. For the early part of December we should expect increased tropical activity around the south west Pacific with some tropical lows likely to develop and increased likelihood of rainfall. The next MJO wave in the Pacific region is likely around New Year.



**Left: Clusters of thunderstorms showing early signs of forming curved bands around developing low pressure can be seen in this enhanced infra-red (EIR) satellite image of Tropical Depression 02F in its formative stages in the early hours of Tuesday 20 November 2012 local time. At this time the system was being monitored as a tropical disturbance over ocean waters north of Vanuatu near the eastern islands of the Solomon Island archipelago. The central and northern islands of Vanuatu can be seen to the south of the cloud clusters, while Guadalcanal and nearby islands can be seen to the west. Keen eyes can just make out the Yasawa island chain in the extreme lower right. The colours represent cloud temperatures, coldest temperatures are in yellow (see scale at the bottom of the image).**

Image: Naval Research Lab

For more information contact Neville Koop, Meteorology/Climatology Adviser: [nevillek@sprep.org](mailto:nevillek@sprep.org)

## Upcoming Events

Event	Location	Date
18th Conference of the Parties to the United Nations Framework Convention on Climate Change	Qatar	26 Nov—7 Dec
GCCA SIS Steering Committee Meeting	Fiji	4-8 Dec
PACC Board Meeting	Fiji	5 Dec
Roadmap Meeting	Fiji	6-7 Dec
PIGGAREP Board Meeting	Fiji	10 Dec

**We wish you all the best for the holiday season!**