WMO RA V
Regional Seminar
on Climate Services

Climate Services
In Fiji

Regional Association RAV
Honiara, Solomon Islands

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Outline of this Presentation

- Overview of FMS and Climate Services
- Climate Monitoring
- Climate Data
- Climate Predictions
- Climate Applications
- Expectations

Overview of FMS
and
Climate Services National Responsibilities

Overview of FMS

- Government Department under Ministry of Works, Transport and Public Utilities

- Two main output Divisions
  - National Weather Forecasting Centre
    - RSMC Nadi–TCC (From Equator to 25°S and from 160°E to 120°W)
  - Climate Services
  - Support Divisions

    Reporting and Facilities (Network)

    Information and Computing (communication and Service delivery)

Climate Services - Responsibilities

- collect, quality control, process and archive meteorological data;
- Archived data is used in a wide variety of global, regional, national and private sector activities;
- Includes monitoring of current and prediction of future climate variability and change;
- Maintain Fiji's National climate Data Centre;
- Provides professional advice on climate variability and change to climate sensitive sectors;
- Responds to clients for climate data, products & consultative services;
- promote climate services nationally and regionally;
- Prepares and disseminates climatological & special reports on many aspects of climate of Fiji;
- Conducts research and development work.

Climate Services Activities

- **Understanding of Climate System**
  - ✓ understanding past and current climate,
  - ✓ climate variability and extremes and
  - ✓ significant natural climate fluctuations on different time scales;

- **Climate Data and Monitoring**
  - ✓ climate observation networks and systems,
  - ✓ climate data management and exchange,
  - ✓ statistical depictions of climate,
  - ✓ status of global climate,
  - ✓ climate watch and alert systems;

- **Climate Predictions and Outlooks**
  - ✓ long range forecasting, consensus driven Predictions and Outlook
  - ✓ WMO El Nino/La Nina Updates, Island Climate Update and On-line Climate Outlook Forum;

Climate Services Cont'd

- **Climate Research**
  - ✓ Operational research in climate variability
  - ✓ Climate change science
  - ✓ Climate change adaptation
  - ✓ International coordination in climate research

- **Climate Change**
  - ✓ Causes of climate change
  - ✓ Elements of climate change
  - ✓ Climate trends and
  - ✓ Climate projections

- **International collaborations and partnerships on climate change**
  - ✓ IPCC, UNFCCC, UN response to climate variability and climate change.

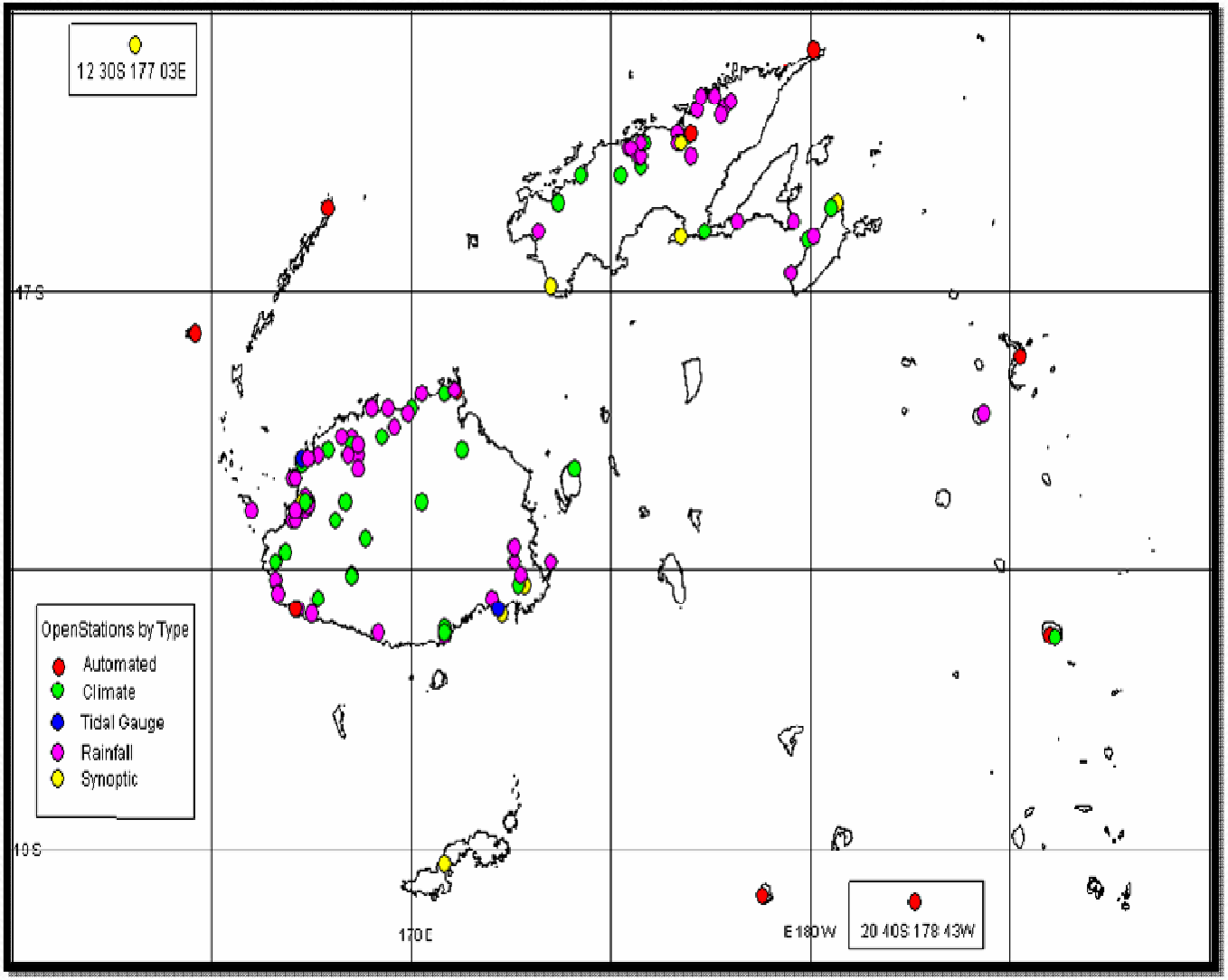
Climate Monitoring

Climate Monitoring Services

- Regular updates on national and regional climate - ENSO Updates and Monthly/Annual Climate Summaries;
- Drought monitoring and advice to National Drought Steering Committee;
- Monitor long term climate trends;
- Government agency responsible for the climate and climate science;
- regional teleconferences – ICU & OCOF;
- Contribute to WMO activities e.g. WMO El Niño/La Niña Updates, WMO Decadal Climate Summary, etc.

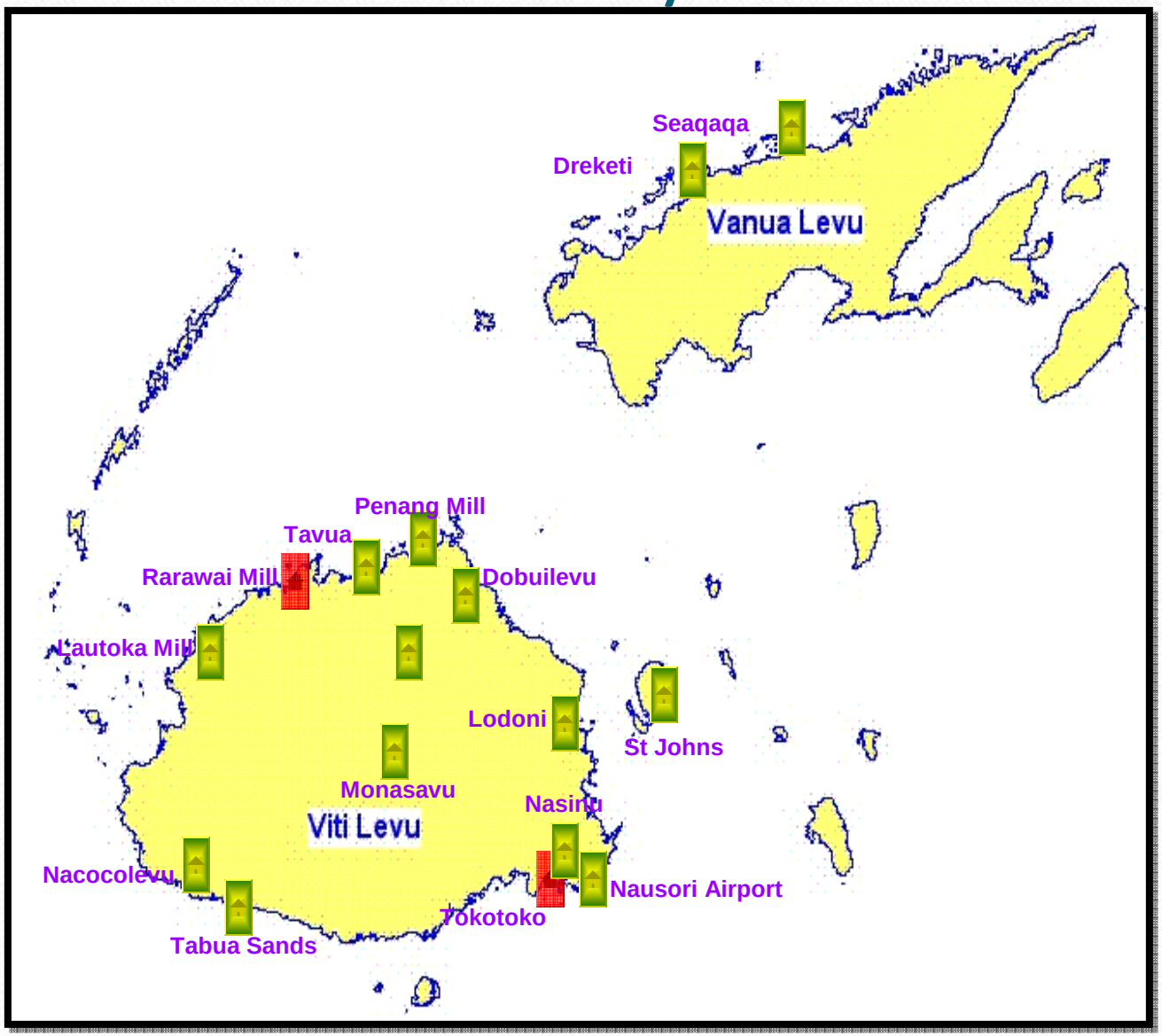
Climate Monitoring – Current Network

- **WMO RBSN**
  - **5 full manual synoptic stations**
- **3 Daytime full synoptic only**
  - **Laucala Bay, Suva**
  - **3 Airfields**
  - **7 AWS**
- **30 climate stations**
- **52 rainfall stations (FMS & FSC)**

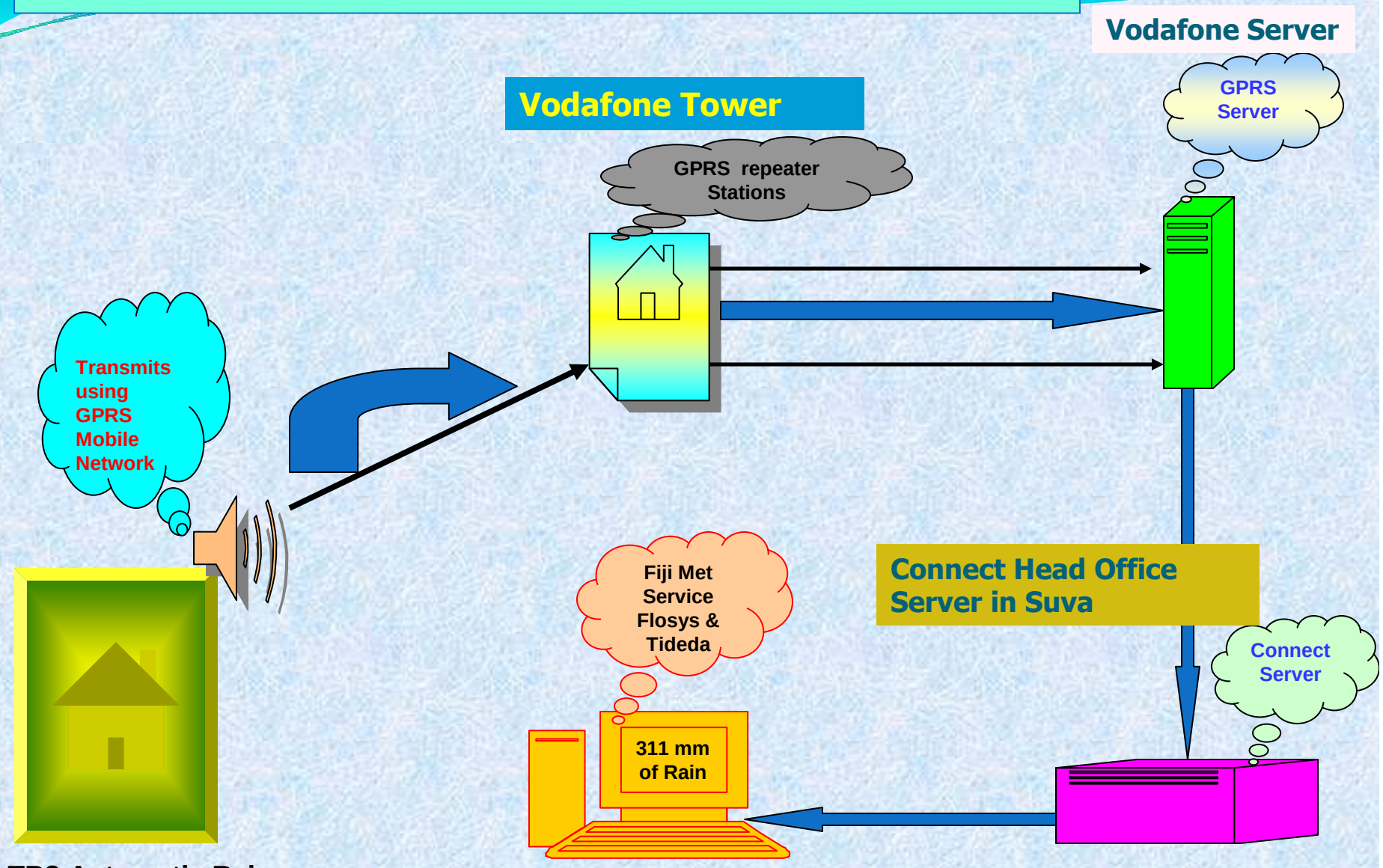


Network of Telemetric Systems

- 14 TB3 Fully Automatic Rainfall Stations
- 2 are Electronic Weather Stations (temperature, pressure and wind)



Telemetric Communication



Extreme Events

- Tropical Cyclones
- Floods
- Droughts
- Hailstorms
- Swells
- Storm Surge
- Extreme Rainfall Events

Climate Data and Analysis

Climate Data

- Rainfall and Rainfall Intensities
- Temperature (Dry & Wet bulb, Maximum, Minimum and Mean)
- Soil Temperatures (10, 20, 30, 50, 60 & 100cm)
- Evaporation
- Barometric Pressure
- Relative Humidity
- Wind (Direction & Speed)
- Sunshine
- Radiation
- Cloud Cover
- Sea Surface Temperature & Sea Level
- Thunder & Lightening, etc.

Data Availability

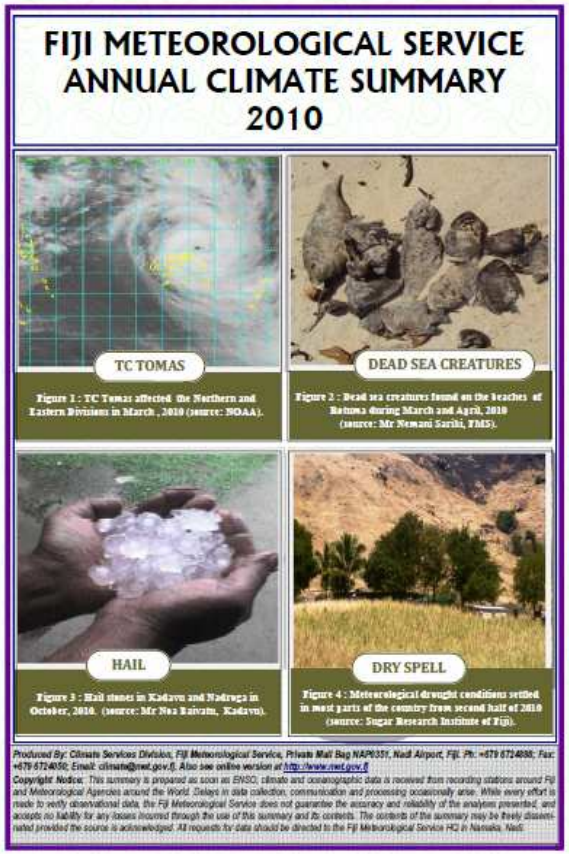
- 5-minute
- Synoptic
- Hourly
- Daily
- Monthly
- Annual
- Rainfall available from late 1800's
- Temperature available from 1930's
- Reliable and consistent datasets available from 1955 for many sites around the country

Data Archiving and Data Rescue

- Data are manually checked (Quality control)
- Keyed into existing database (CLICOM)
  - CLICOM also has built-in quality control mechanism
  - Only 1 dedicated PC for CLICOM (only supported on Windows98)
  - Replaced by CliDE (under Pacific Climate Change Science Project)
- Approximately 70% exists as paper records (Daily, Hourly, Synoptic data)
  - Data Rescue and digitization is a challenge.
  - Offshore data in Australia, NIWA & UK Met Office.

Data Analysis - Climate Summaries & Updates

Annual Climate Summary



FIJI METEOROLOGICAL SERVICE
ANNUAL CLIMATE SUMMARY
2010

TC TOMAS

Figure 1 : TC Tomas affected the Northern and Eastern Divisions in March , 2010 (source: NOAA).

DEAD SEA CREATURES

Figure 2 : Dead sea creatures found on the beaches of Rotuma during March and April, 2010 (source: Mr Nemani Saribi, FMS).

HAIL

Figure 3 : Hail stones in Kadavu and Nadroga in October, 2010. (source: Mr Noa Raivatu, Kadavu).

DRY SPELL

Figure 4 : Meteorological drought conditions settled in most parts of the country from second half of 2010 (source: Sugar Research Institute of Fiji).

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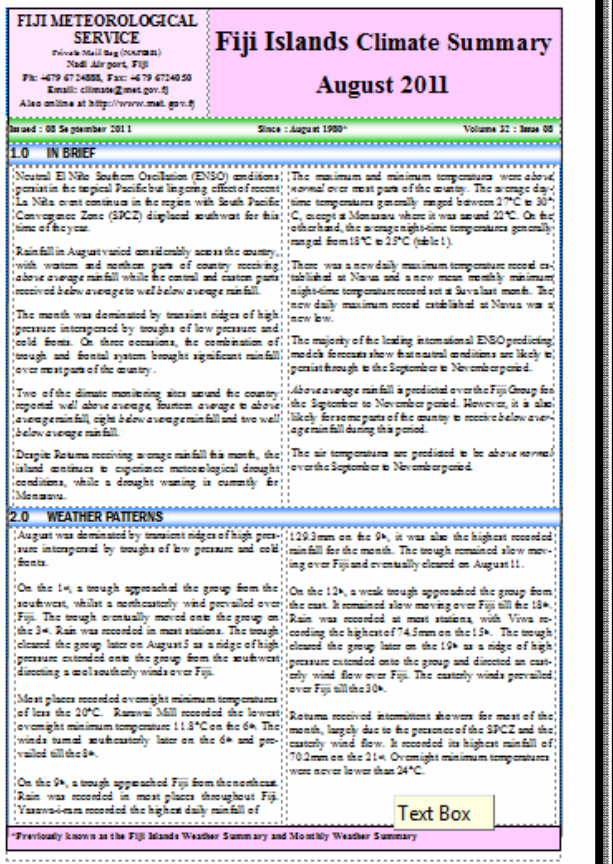
Copyright Notice: This summary is prepared as soon as ENSO, climate and oceanographic data is received from recording stations around Fiji and Meteorological Agencies around the World. Delays in data collection, communication and processing occasionally arise. While every effort is made to verify observational data, the Fiji Meteorological Service does not guarantee the accuracy and reliability of the analyses presented, and accepts no liability for any losses incurred through the use of this summary and its contents. The contents of the summary may be freely disseminated provided the source is acknowledged. All requests for data should be directed to the Fiji Meteorological Service HQ in Nadi, Nadi.

Monthly Climate Summary



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Fiji Islands Climate Summary
August 2011

Issued : 08 September 2011 | Since : August 1950* | Volume 32 : Issue 08

1.0 IN BRIEF

Neutral El Niño Southern Oscillation (ENSO) conditions persist in the tropical Pacific but lingering effect of recent La Niña event continues in the region with South Pacific Convergence Zone (SPCZ) displaced southwest for this time of the year.

Rainfall in August varied considerably across the country, with western and northern parts of country receiving above average rainfall while the central and eastern parts received below average to well below average rainfall.

The month was dominated by transient ridges of high pressure interspersed by troughs of low pressure and cold fronts. On three occasions, the combination of trough and frontal system brought significant rainfall over most parts of the country.

Two of the climate monitoring sites around the country reported well above average, fourteen average to above average rainfall, eight below average rainfall and two well below average rainfall.

Despite Rotuma receiving average rainfall this month, the island continues to experience meteorological drought conditions, while a drought warning is currently for Monasavu.

The maximum and minimum temperatures were above normal over most parts of the country. The average day-time temperatures generally ranged between 27°C to 30°C, except at Monasavu where it was around 22°C. On the other hand, the average night-time temperatures generally ranged from 18°C to 25°C (table 1).

There was a new daily maximum temperature record established at Navua and a new mean monthly minimum night-time temperature record set at Suva last month. The new daily maximum record established at Navua was a new low.

The majority of the leading international ENSO predicting models forecasts show that neutral conditions are likely to persist through to the September to November period.

Above average rainfall is predicted over the Fiji Group for the September to November period. However, it is also likely for some parts of the country to receive below average rainfall during this period.

The air temperatures are predicted to be above normal over the September to November period.

2.0 WEATHER PATTERNS

August was dominated by transient ridges of high pressure interspersed by troughs of low pressure and cold fronts.

On the 1st, a trough approached the group from the southwest, whilst a northeasterly wind prevailed over Fiji. The trough eventually moved onto the group on the 3rd. Rain was recorded in most stations. The trough cleared the group later on August 5 as a ridge of high pressure extended onto the group from the southwest, directing a cool southerly winds over Fiji.

Most places recorded overnight minimum temperatures of less the 20°C. Rarawai Mill recorded the lowest overnight minimum temperature 11.8°C on the 6th. The winds turned southeasterly later on the 6th and prevailed till the 8th.

On the 9th, a trough approached Fiji from the northeast. Rain was recorded in most places throughout Fiji. Yasawa-i-rara recorded the highest daily rainfall of 120.3mm on the 9th, it was also the highest recorded rainfall for the month. The trough remained slow moving over Fiji and eventually cleared on August 11.

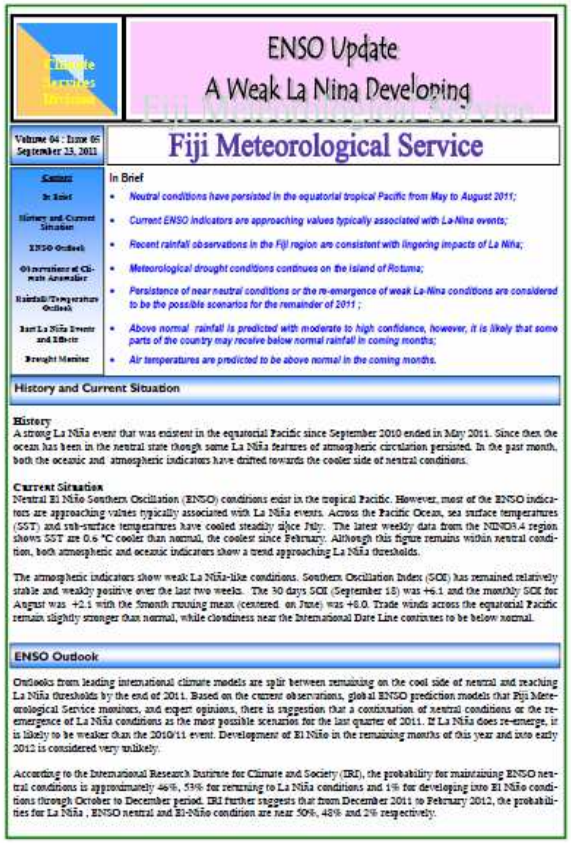
On the 12th, a weak trough approached the group from the east. It remained slow moving over Fiji till the 18th. Rain was recorded at most stations, with Viwa recording the highest of 74.5mm on the 15th. The trough cleared the group later on the 19th as a ridge of high pressure extended onto the group and directed an easterly wind flow over Fiji. The easterly winds prevailed over Fiji till the 30th.

Rotuma received intermittent showers for most of the month, largely due to the presence of the SPCZ and the easterly wind flow. It recorded its highest rainfall of 70.2mm on the 21st. Overnight minimum temperatures were never lower than 24°C.

Text Box

*Previously known as the Fiji Islands Weather Summary and Monthly Weather Summary

ENSO Update



ENSO Update
A Weak La Nina Developing

Volume 04 : Issue 05
September 23, 2011

Fiji Meteorological Service

Contents
In Brief
History and Current Situation
ENSO Outlook
Observations of Climate Anomalies
Rainfall/Temperature Outlook
Past La Niña Events and Effects
Drought Monitor

In Brief

- Neutral conditions have persisted in the equatorial tropical Pacific from May to August 2011;
- Current ENSO indicators are approaching values typically associated with La-Nina events;
- Recent rainfall observations in the Fiji region are consistent with lingering impacts of La Niña;
- Meteorological drought conditions continues on the island of Rotuma;
- Persistence of near neutral conditions or the re-emergence of weak La-Nina conditions are considered to be the possible scenarios for the remainder of 2011 ;
- Above normal rainfall is predicted with moderate to high confidence, however, it is likely that some parts of the country may receive below normal rainfall in coming months;
- Air temperatures are predicted to be above normal in the coming months.

History and Current Situation

History
A strong La Niña event that was existent in the equatorial Pacific since September 2010 ended in May 2011. Since then the ocean has been in the neutral state though some La Niña features of atmospheric circulation persisted. In the past month, both the oceanic and atmospheric indicators have drifted towards the cooler side of neutral conditions.

Current Situation
Neutral El Niño Southern Oscillation (ENSO) conditions exist in the tropical Pacific. However, most of the ENSO indicators are approaching values typically associated with La Niña events. Across the Pacific Ocean, sea surface temperatures (SST) and sub-surface temperatures have cooled steadily since July. The latest weekly data from the NINO3.4 region shows SST are 0.6 °C cooler than normal, the coolest since February. Although this figure remains within neutral condition, both atmospheric and oceanic indicators show a trend approaching La Niña thresholds.

The atmospheric indicators show weak La Niña-like conditions. Southern Oscillation Index (SOI) has remained relatively stable and weakly positive over the last two weeks. The 30 days SOI (September 18) was +6.1 and the monthly SOI for August was +2.1 with the 5month running mean (centered on June) was +8.0. Trade winds across the equatorial Pacific remain slightly stronger than normal, while cloudiness near the International Date Line continues to be below normal.

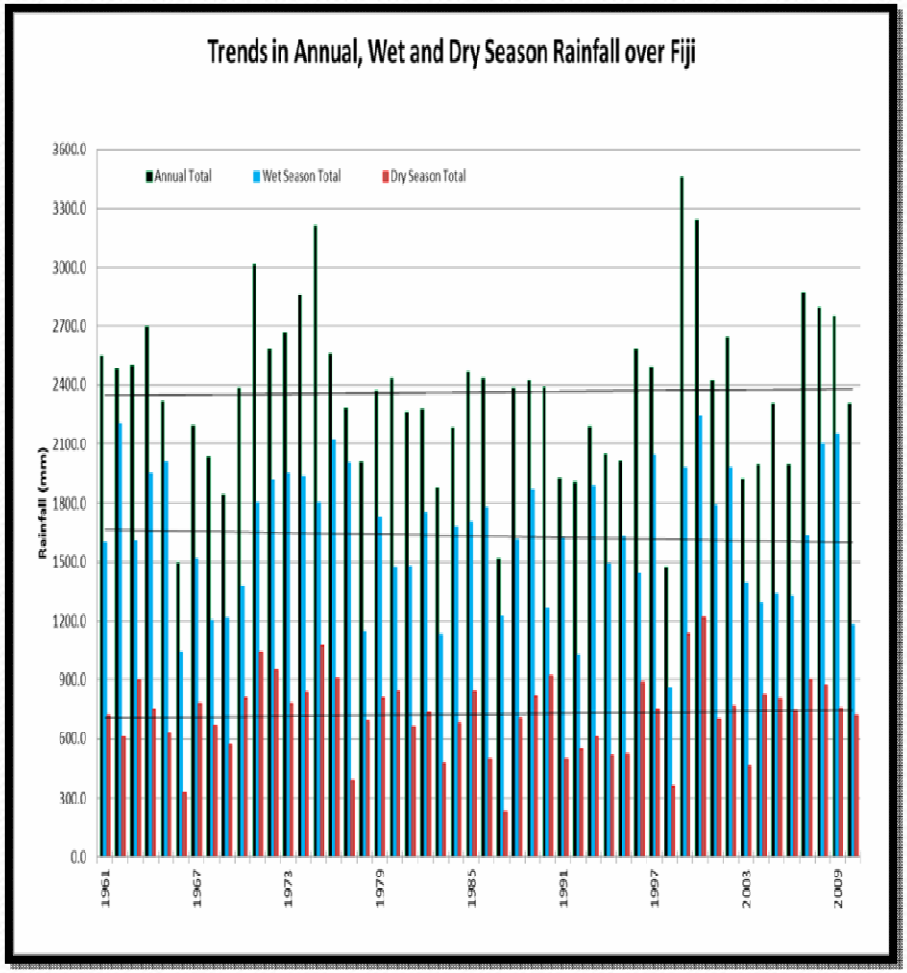
ENSO Outlook

Outlooks from leading international climate models are split between remaining on the cool side of neutral and reaching La Niña thresholds by the end of 2011. Based on the current observations, global ENSO prediction models that Fiji Meteorological Service monitors, and expert opinions, there is suggestion that a continuation of neutral conditions or the re-emergence of La Niña conditions as the most possible scenarios for the last quarter of 2011. If La Niña does re-emerge, it is likely to be weaker than the 2010/11 event. Development of El Niño in the remaining months of this year and into early 2012 is considered very unlikely.

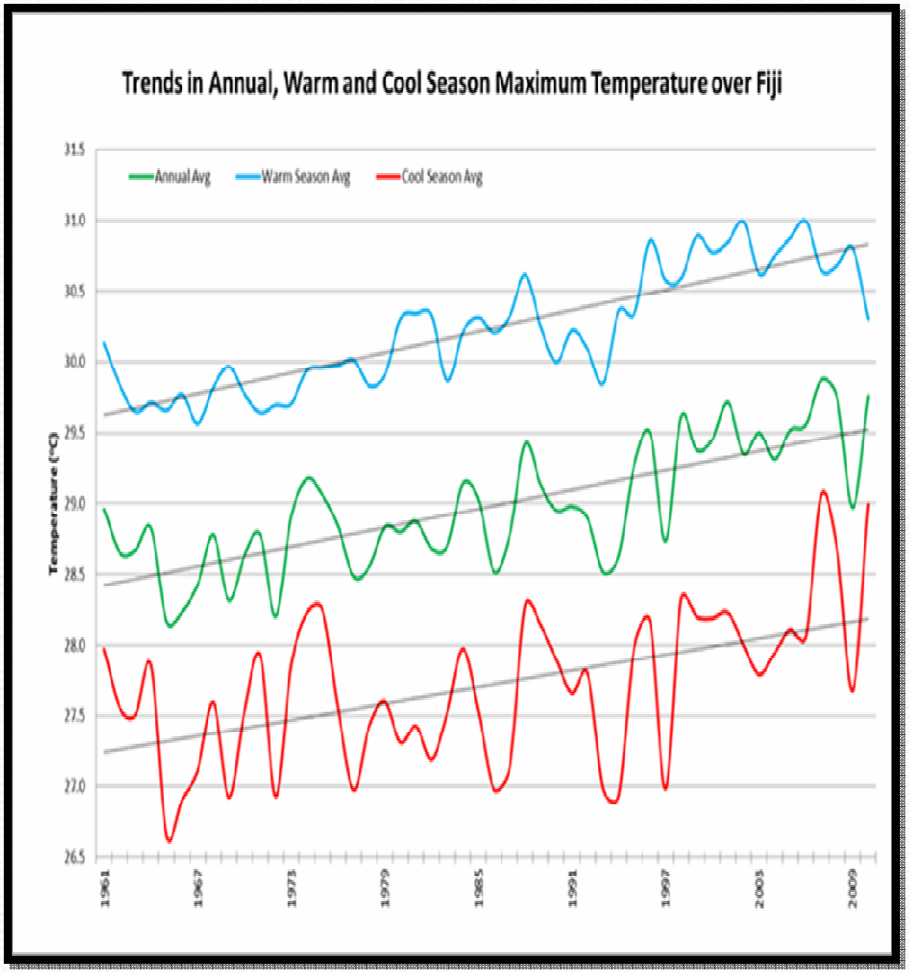
According to the International Research Institute for Climate and Society (IRI), the probability for maintaining ENSO neutral conditions is approximately 46%, 53% for returning to La Niña conditions and 1% for developing into El Niño conditions through October to December period. IRI further suggests that from December 2011 to February 2012, the probabilities for La Niña , ENSO neutral and El-Niño condition are near 50%, 48% and 2% respectively.

Climate Science - Current Trends

- Rainfall



Maximum Temperature



Climate Predictions And Applications

Climate Prediction

- FMS issues seasonal climate outlook (rainfall & temperature) for coming 3 to 6 months.
  - Main guide: SCOPIC – localizes prediction
  - Global and regional models eg. ECMWF, NASA NSIPP, IRI, NCEP, APEC, POAMA etc;
  - Regional teleconferences, Online Climate Outlook Forum and ICU, sets platform and provides consensus based forecasts.
- TC Season Outlook for the RSMC Nadi area of responsibility;
- Long term climate projections: rely on IPCC and international partners for downscaling.

Tropical Cyclone Outlook

2011/12 Tropical Cyclone Season Outlook in the Regional Specialised Meteorological Centre Nadi – Tropical Cyclone Centre (RSMC Nadi – TCC) Area of Responsibility (AOR)

Tropical Cyclone activity in the 2011/12 TC Season within the RSMC Nadi-TCC AOR (Equator to 25˚South between 160˚East and 120˚West), is anticipated to be *below average* with moderate to low confidence. The official 2011/12 TC Season begins on the 1st of November 2011, and ends on April 30th, 2012.

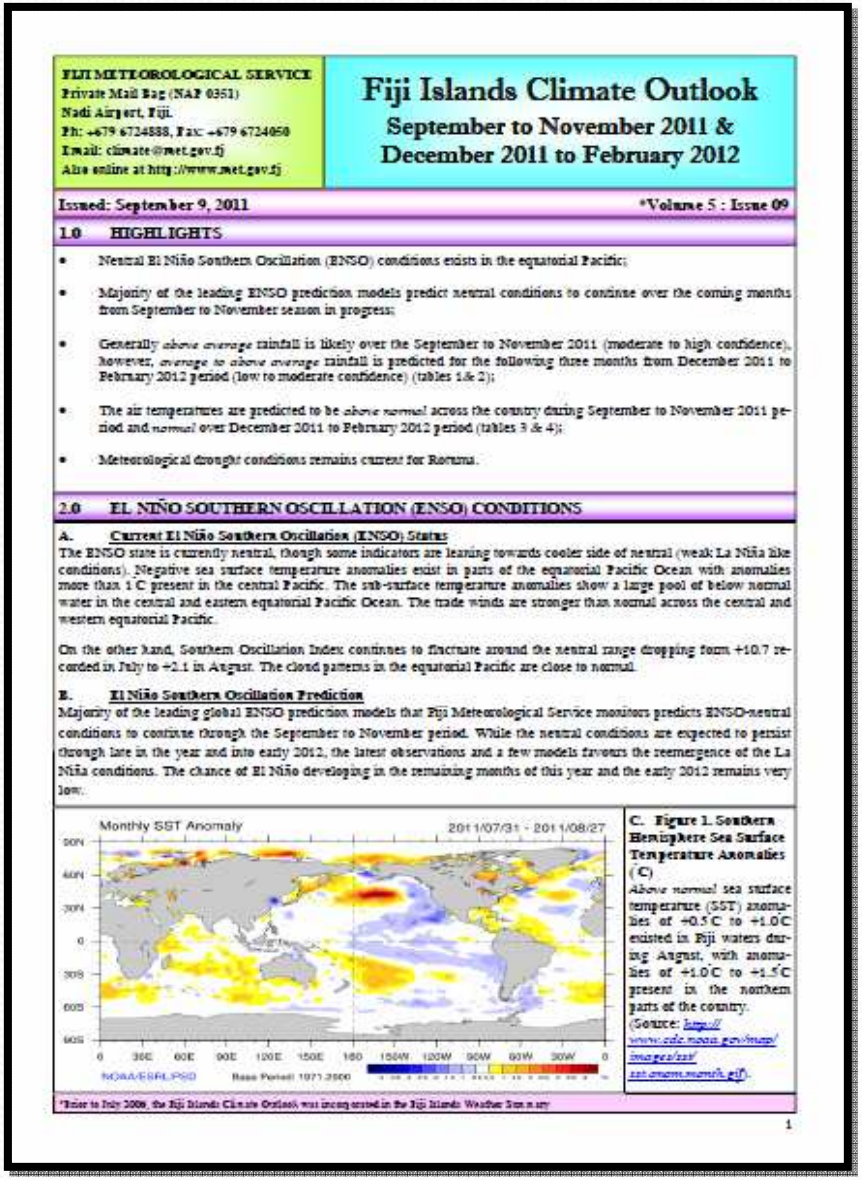
5 to 8 tropical cyclones are expected to occur within RSMC Nadi AOR during the 2011/12 season. On average, for all the 42 seasons from 1969/70 to 2010/11, 9 cyclones usually occur, 7 for the La Niña seasons, and 10 for the El Niño seasons. For the 2011/12 season outlook, seven analogue seasons were used (Table 3).

In the 2011/12 season, the tropical cyclone genesis trough is expected to be located in the Coral Sea region based on the current ENSO characteristics and existence of the warm pool of sea surface and sub-surface temperature anomalies in this area. Subsequently, west of the Dateline, there is an elevated chance of the number of cyclones exceeding average, while reduced chances east of the Dateline. However, islands around French Polynesia could expect elevated chances of cyclone later in the season due to the unfolding La Niña episode.

Thus, for New Caledonia and Vanuatu, the associated risk is high, moderate to high for Fiji, Tonga and Cook Islands, and moderate for Niue, Wallis & Futuna, Samoa, and Solomon Islands. Tropical cyclone risk is low to moderate for Tuvalu and very low for Tokelau (Table 1). Despite this, historical tropical cyclone information indicates tropical cyclones can affect any country, irrespective of the prevailing ENSO phase. It is therefore critical that all countries remain alert and prepared throughout the 2011/12 tropical cyclone season.

Furthermore, there is elevated risk for severe tropical cyclones to affect New Caledonia, Vanuatu, Fiji and Tonga. Normal to near normal risks for Samoa, Solomon Islands, Wallis and Futuna and Cook Islands and reduced risks for Niue, Tokelau and Tuvalu (Table 2).
For Fiji, one to two (1-2) cyclones are expected in the 2011/12 season, of which one (1) may reach or exceed category 3 status. With the genesis trough in the Coral Sea region, there is a high probability that tropical cyclones will approach Fiji from the west or northwest. For those tropical cyclones passing further to the southwest of the country, associated active cloud and rain bands may occasionally affect Fiji and bring heavy rain and possible flooding, including sea flooding of low-lying coastal areas.

Seasonal Outlook



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Fiji Islands Climate Outlook
September to November 2011 & December 2011 to February 2012

Issued: September 9, 2011 — *Volume 5 : Issue 09

1.0 HIGHLIGHTS

- Neutral El Niño Southern Oscillation (ENSO) conditions exists in the equatorial Pacific;
- Majority of the leading ENSO prediction models predict neutral conditions to continue over the coming months from September to November season in progress;
- Generally *above average* rainfall is likely over the September to November 2011 (moderate to high confidence), however, *average to above average* rainfall is predicted for the following three months from December 2011 to February 2012 period (low to moderate confidence) (tables 1& 2);
- The air temperatures are predicted to be *above normal* across the country during September to November 2011 period and *normal* over December 2011 to February 2012 period (tables 3 & 4);
- Meteorological drought conditions remains current for Rotuma.

2.0 EL NIÑO SOUTHERN OSCILLATION (ENSO) CONDITIONS

A. Current El Niño Southern Oscillation (ENSO) Status

The ENSO state is currently neutral, though some indicators are leaning towards cooler side of neutral (weak La Niña like conditions). Negative sea surface temperature anomalies exist in parts of the equatorial Pacific Ocean with anomalies more than 1 C present in the central Pacific. The sub-surface temperature anomalies show a large pool of below normal water in the central and eastern equatorial Pacific Ocean. The trade winds are stronger than normal across the central and western equatorial Pacific.

On the other hand, Southern Oscillation Index continues to fluctuate around the neutral range dropping form +10.7 recorded in July to +2.1 in August. The cloud patterns in the equatorial Pacific are close to normal.

B. El Niño Southern Oscillation Prediction

Majority of the leading global ENSO prediction models that Fiji Meteorological Service monitors predicts ENSO-neutral conditions to continue through the September to November period. While the neutral conditions are expected to persist through late in the year and into early 2012, the latest observations and a few models favours the reemergence of the La Niña conditions. The chance of El Niño developing in the remaining months of this year and the early 2012 remains very low.

C. Figure 1. Southern Hemisphere Sea Surface Temperature Anomalies (C)

Above normal sea surface temperature (SST) anomalies of +0.5˚C to +1.0˚C existed in Fiji waters during August, with anomalies of +1.0˚C to +1.5˚C present in the northern parts of the country. (Source: http://www.cdc.noaa.gov/map/images/sst/sst.anom.month.gif).

*Prior to July 2008, the Fiji Islands Climate Outlook was incorporated in the Fiji Islands Weather Summary

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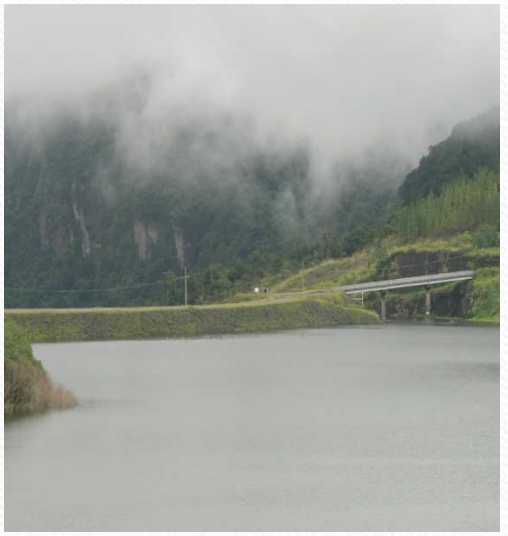
Climate Applications

Renewable Energy

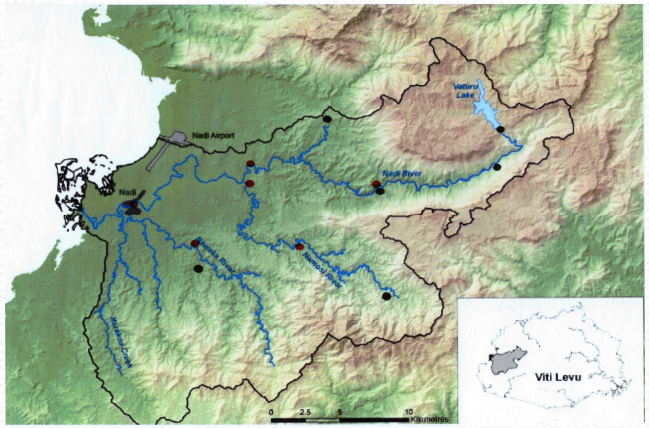
- Planning and Decision Making
- Resources Mobilization
- Hydro and Fossil Fuel Mix
- Wind Power Generation
- Solar Power Potentials



Agriculture

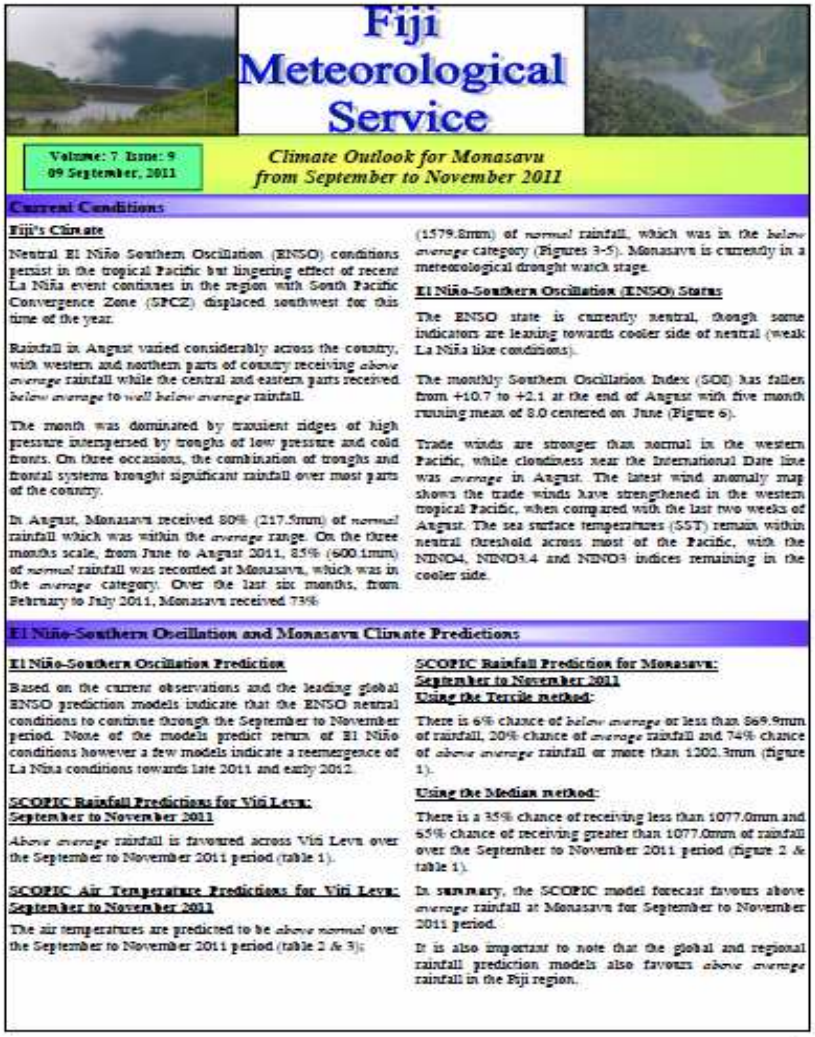
Ministry of Primary Industries

- Pacific Adaptation to Climate Change (drainage systems)
- Integrated Water Resource Management – Adaptation to Climate Change Nadi Watershed Catchment
- Sugar Industry & Crop Diversification



Special Products for Climate Sensitive Sectors

Energy Sector Outlook



Fiji Meteorological Service

Volume: 7 Issue: 9
09 September, 2011

Climate Outlook for Monasavu from September to November 2011

Current Conditions

Fiji's Climate

Neutral El Niño Southern Oscillation (ENSO) conditions persist in the tropical Pacific but lingering effect of recent La Niña event continues in the region with South Pacific Convergence Zone (SPCZ) displaced southwest for this time of the year.

Rainfall in August varied considerably across the country, with western and northern parts of country receiving *above average* rainfall while the central and eastern parts received *below average* to *well below average* rainfall.

The month was dominated by transient ridges of high pressure interspersed by troughs of low pressure and cold fronts. On three occasions, the combination of troughs and frontal systems brought significant rainfall over most parts of the country.

In August, Monasavu received 80% (217.5mm) of *normal* rainfall which was within the *average* range. On the three months scale, from June to August 2011, 85% (600.1mm) of *normal* rainfall was recorded at Monasavu, which was in the *average* category. Over the last six months, from February to July 2011, Monasavu received 73% (1579.8mm) of *normal* rainfall, which was in the *below average* category (Figures 3-5). Monasavu is currently in a meteorological drought watch stage.

El Niño-Southern Oscillation (ENSO) Status

The ENSO state is currently neutral, though some indicators are leaning towards cooler side of neutral (weak La Niña like conditions).

The monthly Southern Oscillation Index (SOI) has fallen from +10.7 to +2.1 at the end of August with five month running mean of 8.0 centered on June (Figure 6).

Trade winds are stronger than normal in the western Pacific, while cloudiness near the International Date line was *average* in August. The latest wind anomaly map shows the trade winds have strengthened in the western tropical Pacific, when compared with the last two weeks of August. The sea surface temperatures (SST) remain within neutral threshold across most of the Pacific, with the NINO4, NINO3.4 and NINO3 indices remaining in the cooler side.

El Niño-Southern Oscillation and Monasavu Climate Predictions

El Niño-Southern Oscillation Prediction

Based on the current observations and the leading global ENSO prediction models indicate that the ENSO neutral conditions to continue through the September to November period. None of the models predict return of El Niño conditions however a few models indicate a reemergence of La Niña conditions towards late 2011 and early 2012.

SCOPIC Rainfall Predictions for Viti Levu: September to November 2011

Above average rainfall is favoured across Viti Levu over the September to November 2011 period (table 1).

SCOPIC Air Temperature Predictions for Viti Levu: September to November 2011

The air temperatures are predicted to be *above normal* over the September to November 2011 period (table 2 & 3).

SCOPIC Rainfall Prediction for Monasavu: September to November 2011

Using the Tercile method:

There is 6% chance of *below average* or less than 869.9mm of rainfall, 20% chance of *average* rainfall and 74% chance of *above average* rainfall or more than 1202.3mm (figure 1).

Using the Median method:

There is a 35% chance of receiving less than 1077.0mm and 65% chance of receiving greater than 1077.0mm of rainfall over the September to November 2011 period (figure 2 & table 1).

In **summary**, the SCOPIC model forecast favours above *average* rainfall at Monasavu for September to November 2011 period.

It is also important to note that the global and regional rainfall prediction models also favours *above average* rainfall in the Fiji region.

1

Sugar Sector Outlook

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Fiji Islands Sugar Cane Rainfall Outlook from August 2011
Harvesting
&
Crushing Season

Volume: 7 Issue: 3 July 2011

Introduction

This document contains August to October and the following three month rainfall outlooks for the Fiji sugar cane "belt". The chances of *below normal*, *normal* and *above normal* conditions are given as probabilities and presented in tables on pages 2 to 4. The Fiji Meteorological Service currently uses a statistical climate prediction model known as SCOPIC (Seasonal Climate Outlook for Pacific Island Countries) for seasonal rainfall guidance. For the Fiji region, the model uses recent monthly anomalies of sea surface temperature from parts of the Pacific Ocean (central - eastern and south - western Pacific regions) or Southern Oscillation Index (SOI) as predictors of Fiji's rainfall.

Summary Statement

- Rainfall was *normal* to *above normal* except in parts of Vanua Levu, northern Lau Group and Rotuma where *normal* to *below normal* rainfall was recorded during April to June 2011 period;
- The La Niña event that was existent in the tropical equatorial Pacific since July 2010 has ended and neutral El Niño Southern Oscillation (ENSO) conditions exist across the tropical Pacific Ocean;
- The majority of the leading global ENSO prediction models predict neutral conditions to continue in the coming months, however, re-emergence of La Niña or development of El Niño conditions cannot be ruled out at this stage;
- For the August to October 2011 period, *normal* to *above normal* rainfall is predicted across the sugar cane "belt" with low to moderate confidence, while *above normal* rainfall is favoured for the November 2011 to January 2012 period with good to high confidence;
- *Above normal* air temperatures (both day and night) are favoured across the sugar cane "belt" through the August to October period (moderate to high confidence) and generally *below normal* over November 2010 to January 2012 (low confidence).

1

Health Sector - Ministry of Health

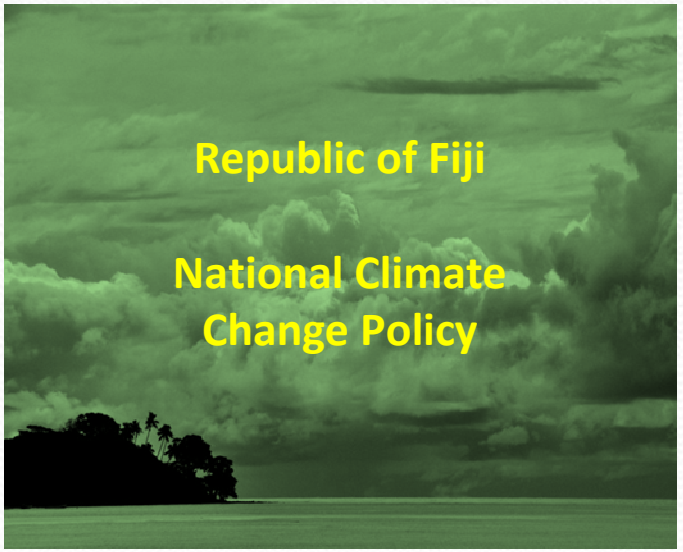
Piloting Climate Change to Protect Human Health

Climate Early Warning for Climate sensitive diseases

- Technical Working Group

- Steering Committee

Other Local Engagement Department of Environment



Technical Advice/Expert Opinion

✓ Department of Environment:

- Second National Communication
- National Climate Change Country Team
- National Climate Change Adaptation Strategy Development
- Carbon Trading Technical Team
- Climate Change Policy Task Force
- Climate Change Adaptation Projects
- National Climate Change Policy

Local Engagement - continued

- ✓ **National Disaster Management Office**
  - **Meteorological drought assessment and advisory**
  - **National drought steering committee**
  - **National drought technical working group**
  - **Community Based Disaster Risk Management – Early Flood Warning**
- ✓ **Others**
  - **ADB - Strengthening Capacity of the developing member countries to respond to climate change**

    Trends and Projections

    New Climate monitoring Sites

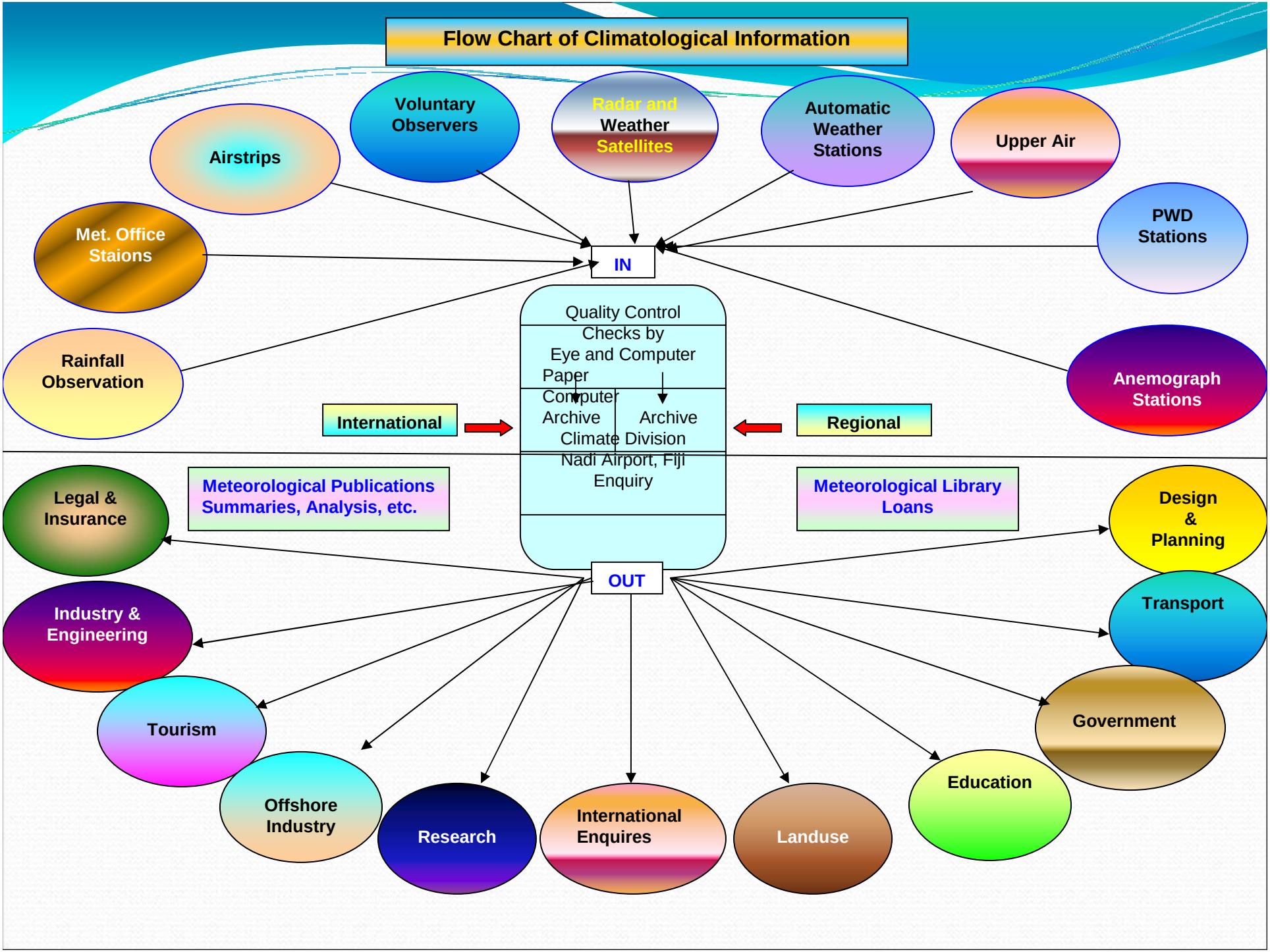
    Extension of town boundary (Nausori Town)

Regional Activities

- Pacific Island Climate Prediction Project (PICPP);
- Pacific Adaptation Science Assistance Program (PASAP);
- Pacific Climate Change Science Program (PCCSP);
- South Pacific Sea Level and Climate Monitoring;
- Online Outlook Forums (OCOF and ICU);
- Working Group on Climate Matters and Rapportuer on education and training in RA V.

International

- WMO
  - World Radiation Data Centre
  - International Climate Message
  - Status of Global Climate and Decadal Summary
  - El Nino/La Nina Update
- IPCC – Focal Point
- UNFCCC (Second National Communications)


Flow Chart of Climatological Information
Voluntary Observers
Radar and Weather Satellites
Automatic Weather Stations
Upper Air
Airstrips
Met. Office Staions
PWD Stations
IN
Quality Control
Checks by
Eye and Computer
Paper
Computer
Archive
Archive
Climate Division
Nadi Airport, Fiji
Enquiry
Rainfall Observation
Anemograph Stations
International
Regional
Legal & Insurance
Meteorological Publications
Summaries, Analysis, etc.
Meteorological Library
Loans
Design & Planning
OUT
Industry & Engineering
Transport
Tourism
Government
Offshore Industry
Research
International Enquires
Landuse
Education

Expectations

A coordinated approach in:

- Standardizing Instrument & QC Methodology;
- Bench marking Climatologists with formal qualifications;
- Continual Capacity and skills Development;
- Availability of user friendly tools for climate data analysis;
- CLiDE-ESC availability to Fiji (generate products/policies for government and stakeholders);
- Learn from other countries & research institutions, adapt and apply.