



SEVENTH MEETING OF THE PACIFIC METEOROLOGICAL COUNCIL (PMC-7)



Agenda item: 10.5 VanKIRAP



Update on the Vanuatu Climate Information Services for Resilient Development Planning Project

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GREEN
CLIMATE
FUND



Purpose of the Paper

1. To provide update on the activities, progress and achievements of the Vanuatu Climate Information Services for Resilient Development Planning (VanKIRAP) project.



Background

1. The Climate Information Services for Resilient Development Planning in Vanuatu project, locally known in Bislama as the Vanuatu Infomesen blong reddy, adapt mo protekt (VanKIRAP) project, is a USD\$18 million Government of Vanuatu initiative, funded by the Green Climate Fund (GCF) through SPREP as the accredited entity (AE). The project implementation is led by the Vanuatu Meteorology and Geo- hazards Department (VMGD) with support from SPREP, APCC, CSIRO and BOM. The project lifespan is from 2018 to 2025.
2. The project is using science to better prepare Vanuatu's policy makers and local communities in the last mile for a changing climate.
3. VanKIRAP builds on and complement the previous and current activities in Vanuatu such as the Republic of Korea Pacific Islands Climate Prediction Services (ROKPI CliPS Phases 1 and 2), Pacific Australia Adaptation to Climate Change Science and Adaptation Planning (PACCSSAP), Next-Generation Climate Projection for the Pacific (Next Gen) project, and the Climate and Ocean Support Program for the Pacific (COSPPac).



Objectives

1. The VanKIRAP project embarks to institute a paradigm shift to standardize the use of science-based climate information. This is seen as a necessary base to underpin awareness raising and long-term policy planning around climate change.
2. This project expands the use of Climate Information Services (CIS) in five targeted climate sensitive sectors: **tourism, agriculture, infrastructure, water management** and **fisheries** identified in the Vanuatu Framework for Climate Services.
3. Specific project goals include building technical capacity to harness and manage climate data, developing practical CIS tools, fostering their use and disseminating tailored climate information.
4. Total budget = USD 18 million grant from the Green Climate Fund, a flagship project for SPREP and VMGD.



Update

- Total grant funding (GCF) = USD\$ 18 million
- Co-financing (Vanuatu Government) = USD\$ 3,682,000 million
- Total disbursement received = USD\$15 million
- Remaining funds with GCF = USD\$3 million
- Remaining cornerstone activity for FY2024 to FY2025, Weather Radar System = USD \$3.19 million.



Update

1. The project has strengthened the Vanuatu weather and climate observations network with the installation of 8 automatic weather stations (AWSs) and 8 automatic raingauges (ARGs) in partnership with NIWA.
2. A new ocean monitoring network (6 ocean buoys) has been established to monitor sea surface temperature, wave heights and direction to support ocean services. The new network complements the sea level monitoring gauges in Port Vila, Luganville, Tanna and Malekula.
3. Basic hydrology functions of the Vanuatu Water Resources Department re-established through the installation of a river monitoring gauge at the Sarakata river in Luganville, Santo, Sanma Province and building the technical capacity of DoWR with a Tideda hydro database and standard operating procedures.
4. A network of groundwater monitoring sensors have been installed within the Sarakata river catchment with telemetry capability to stream near-real-time data to the Tideda database.
5. A citizen science program for schools has been established to monitor and collect rainfall observations and traditional knowledge data in 30 locations in Tanna, Malekula and Ambae.
6. To enhance the capacity of the infrastructure sector, the project has supplied the Vanuatu Public Works Department with a DJI Matrice 300 drone aircraft with LIDAR and photogrammetry capability. The project is now collecting LIDAR data with two NZ certified drone pilots. .



Tailored System of Climate Services for Agriculture: The OSCAR System

SUPPORT FOR STABLE AGRICULTURAL ACTIVITIES

IMPROVING THE PRODUCTIVITY OF FIELD CROPS

FARM CUSTOMIZED CLIMATE SERVICE

Web-based DSS
Mobile device-compatible DSS

Crop Climate Diary (CCD)
Just take photo to collect crop growth and yields
#machine learning
#computer vision

Farming Advisory
Decide crop modeling and traditional knowledge-based optimal farming practices
#APCC mme seasonal forecasts
#crop modeling and decision trees

Vanuatu Digital Soil Map
Access digitized soil map and data online. A simple yet powerful way to utilize soil data
#more than 20 soil properties
#essential data for agricultural decision making

Climate Extremes & Agromet indices
Get early warning information for agricultural practices
#satellite image-based high resolution data
#monitoring and forecasting

Interactive Weather Map
Explore high-quality near real-time weather data where you are now
#gap-filling
#quality-control

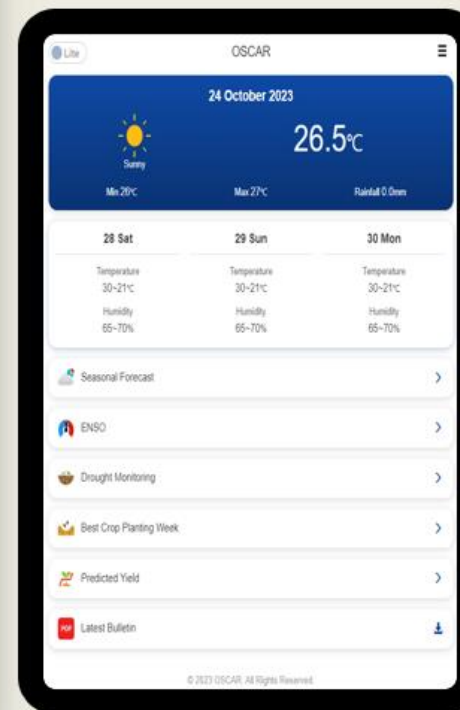
Automatic Weather Station

OSCAR
tailored System of Climate services for Agriculture

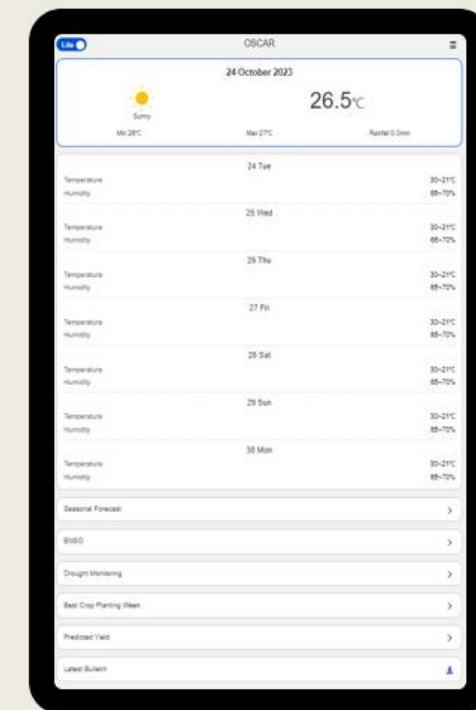
- Weather Map
- Climate Extremes Index
- Agro-met Index
- Agro-met Bulletin

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Mobile version



Lite version





Vanuatu Climate Futures Portal

Welcome to the Van-KIRAP Portal

The Van-KIRAP portal is a gateway to climate information services and tools, providing users with the science, mapping, and other resources to plan their adaptation actions.

Case studies

These case studies provide a summary of projected climate changes for Vanuatu's key sectors and industries, their potential impacts and possible strategies for climate action at local, provincial and national levels.

Guides & Resources

There are plenty of resources to support your adaptation planning journey.

Check out:

- A step by step guide on undertaking a hazard-based climate change risk assessment & adaptation plan that describe explain underlying climate drivers and hazard-based impact assessment.
- Technical briefings provide long-term climate change projections for Vanuatu.

Data & Charts

Videos

Explore VanKirap Climate change videos

First 6 New Ocean Monitoring Buoy

6 new ocean monitoring buoy by VanKIRAP

Drone boosts Vanuatu's climate change adaptation efforts

Climate Mapping Tool

This visualization tool allows you to select climate variables, projections, time periods and locations to generate and download customised maps and datasets.

Look for the information icon ⓘ next to each field for detailed descriptions.


[Explore the data](#)

Traditional Knowledge


TRADITIONAL KNOWLEDGE & TROPICAL CYCLONE

Issue: February 2024
By: Climate division (VMGD)


Fruit Tree's
Heavy flowering and fruiting's of plants is an indicator showing chances of Tropical Cyclone Likely to Develop




Atmospheric temperature
Warmer than normal atmospheric temperatures is indicate's chances of Tropical Cyclone likely to develop




Frigate birds
Sea birds flying up in the sky, is an indication that a Tropical Cyclone will be expected in the next few days.



Sea Turtles
Sea turtle's nesting further up inland, is a sign of tropical cyclone likely to develop.



Pacific Emerald Dove
Pacific emerald dove, nesting in lower locations close to the ground.



Traditional Knowledge Calendar

Month	Indicators
OCT	
NOV	
DEC	
CYCLONE	
blong planem Yam	-Prier blong Krimas -Family kam Krimas
-Planem korn	-Ren I stat kam -Family day
-planem cucumba	-skul closing -Singsing Bonane
-Preper Saeklon	-Ples I hot long day/naet -Mango I raep
	-Wota melon -Sohwota I hot

Contact us;
Call 23866, Toll Free 116
Email: climate@meteo.gov.vu

- Traditional Knowledge Strategy
- National TK Indicator booklet
- TK Indicators Climate relationship guide
- Provincial TK calendars (6)
- Community TK calendars
- ClimateWatch App (Citizen Science), Eng|Bislama, 20 TK Indicators and Guides
- Come to our CW App Side Event on Wednesday 18 Sep 2024, evening walk along the Warwick trail.



Recommendations:

The Meeting is invited to:

- **Note** the update and the significant progress made by the VanKIRAP project.
- **Acknowledge** the leadership demonstrated by the Vanuatu Meteorology and Geohazards Department and delivery partners for their work in the implementation of the VanKIRAP project and outcomes.
- **Recommend** that the project lessons learnt, and cutting-edge CIS tools developed for Vanuatu can be replicated and upscaled in a VanKIRAP Phase 2 under the One Pacific Programme (OPP) to benefit other NMHSs.