

WORKSHOP REPORT.

National Stakeholders Consultation on the Vanuatu Weather Radar system.

4 June 2021.



Vanuatu Klaemet blong Redy, Adapt mo Protekt project
Van KIRAP

Table of Contents

ATTENDEES.....	2
1. INTRODUCTION.....	5
1.1 Policy relevance	5
1.2 Stakeholders consultation	5
1.3 Consultation process.....	6
2. WORKSHOP SESSIONS.....	6
Session 1: Introductory Remarks / Welcome	6
Session 2: Official Opening Address.....	7
Session 3: Introduction to the Vanuatu Klaemet Infomesen, Blong Redy, Adapt mo Protekt (Van-KIRAP) project & objectives of the consultation workshop.....	7
Session 4: Update on the Radar Cost benefit analysis.....	7
3. MEETING OUTCOMES.....	11
Appendix A.....	13
Appendix B.....	14
Appendix C.....	14

ATTENDEES

The workshop was attended by the following people.

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		Geo-Hazards Department		
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Esther Saul	Principal ICT Officer	Vanuatu Meteorology and Geo-Hazards Department	M	esaul@meteo.gov.vu

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Jino Moli	Electronics Engineer	Vanuatu Meteorology and Geo-Hazards Department	M	jino.moli@gmail.com
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1. INTRODUCTION

The Vanuatu Klaemet Infomesen Blong Redy, Adapt mo Protekt (Van-KIRAP) project funded by the Green Climate Fund is using science to better prepare Vanuatu's policy makers and public for a changing climate. This project will help address this need by achieving 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.

This project will expand the use of Climate Information Services (CIS) in five targeted sectors: tourism, agriculture, infrastructure, water management and fisheries. 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.

GCF funding will contribute to greater understanding of climate patterns across time to ensure adaptation planning and policy implementation is informed by the right data.

In 2016, the Vanuatu Government through the Vanuatu Meteorology and Geo-Hazards Department, Ministry of Climate Change Adaptation (MoCCA) requested SPREP to support the first weather radar system. A proposal was submitted to the Green Climate Fund (GCF) through SPREP, as an Accredited Entity (AE) and was approved by the GCF Board in December 2016. The weather radar is a component of the Van-KIRAP project.

The weather radar was identified as a key gap in Vanuatu's current Early Warning System (EWS) following Severe Tropical Cyclone Pam, a category 5 event. Commissioning a weather radar will enhance the tracking of tropical cyclones and severe weather events and will translate into more reliable early warnings and forecasts for the nation. Furthermore, the new information generated from the weather radar will support planning and future development activities of all key sectors such as agriculture, fisheries, water, environment, oceans and maritime, civil aviation, land and sea transport, tourism, climate change adaptation and disaster risk reduction and disaster management etc.

1.1 Policy relevance

This development initiative aligns and contributes to the Vanuatu National Sustainable Development Plan (NSDP) or The People's Plan, Environment Pillar 3, Policy Objective ENV 3.2: Improve monitoring and early warning systems and its 2030 target to 100% of provinces with multi-hazard warning systems.

1.2 Stakeholders consultation

The stakeholders consultation will allow for VMGD to solicit views of relevant government agencies, stakeholders and potential users of the weather radar information on this key initiative. It will also allow for VMGD to understand important regulatory requirements that will support the commissioning and operation of a weather radar in Vanuatu for early warning and disaster preparedness for our people.

Stakeholder consultation objectives and desires outputs

- a. Finalise a list of key regulatory acts, regulations and fees (costings) for the operation of a weather radar in Vanuatu.

- b. Establish a list of key focal points and technical officer in each government departments for follow-up meetings.
- c. Stakeholders feedback in relation to the weather radar (feedback forms to be provided).
- d. Consultation report outlining key outcomes and findings.
- e. Costings for meeting all local regulatory requirements and fees as per (a) above, including utility costs for electricity, internet and communications.

1.3 Consultation process

This workshop is the first step of the planned consultation process outlined in detailed below, which will be delivered over four phases.

Consultation phases	Desired Output
1. Stakeholders workshops for technical and operations officers (identify key requirements – legislative, utility costs etc	(i)workshop report and findings (ii) preliminary estimates on the preparatory and operational costs for the weather radar.
2. Face to face meetings (one on one) with essential agencies for follow-up eg Lands Department on land issues / agreement etc	(i)Meeting outcome report and (ii) Final costings for preparatory and operational requirements for the weather radar.
3. Meeting/workshop with NAB (Director General and Directors on key findings from (a) for their approval.	(i) NAB approval
4. Council of Ministers (COM's) paper and presentation	(i) COM's approval of the weather radar and government of Vanuatu support for radar beyond project lifetime.

2. WORKSHOP SESSIONS

Session 1: Introductory Remarks / Welcome

Mr. Joe Mala, the Acting Director, Vanuatu Meteorology and Geo-Hazards Department (VMGD) provided a welcome address to the meeting noting the absence of the Director, Mr Montin Romone in the proceedings but appreciate the participation of all relevant stakeholders in this important national dialogue.

Session 2: Official Opening Address

The workshop was officially opened by the First Political Advisor to the Honourable Minister of Meteorology, Geo-Hazards and Climate Change, Mr. Charles Lini where he “reminded that Vanuatu must advance to the next level in providing reliable, timely and up-to-date information to place Ni-Vanuatu communities across the country in a better position to prepare for and respond to disasters”

Mr Lini thanked the Green Climate Fund for the funding support and encourage the national agencies to utilise the window of opportunity to the fullest and be open in the dialogue to identify opportunities to assist the local people in the upcoming cyclone seasons in the future and beyond.

Session 3: Introduction to the Vanuatu Klaemet Infomesen, Blong Redy, Adapt mo Protekt (Van-KIRAP) project & objectives of the consultation workshop.

The VMGD Project Manager, Mrs Moirah Matou then provided a high-level summary of the Vanuatu Klaemet Infomesen, Blong Redy, Adapt mo Protekt project. This presentation provided background information about the project and the linkages to the radar weather system.

Mrs Matou also discussed the main objectives of the national dialogue and the importance of the consultation process which allows for the project team and VMGD to solicit views and feedback from all relevant agencies.

Session 4: Update on the Radar Cost benefit analysis

SPREP Acting Manager, Van-KIRAP Project, Mr Sunny Seuseu provided a detailed presentation on the consultation process, highlighted the four (4) consultation phases that will be followed (see Section 1.3).

Mr Seuseu also outlined the process in which the radar was identified by the Government of Vanuatu as a priority in 2015 following the Severe Tropical Cyclone Pam which devastated the country. He also spoke about how the radar system will respond to the Environmental Policy Priority 3.2, under the Vanuatu National Sustainable Development Plan (NSDP) or the People’s Plan 2030. This led to the inclusion of the weather radar in the development of a project proposal by the Secretariat of the Pacific Regional Environment Programme (SPREP) to the Green Climate Fund (GCF).

The presentation included the finding of the Cost Benefit Analysis (CBA) report undertaken by the New Zealand National Institute of Water and Atmospheric Research (NIWA). The report supports the commissioning of the weather radar for Vanuatu to improve the nations multi-hazard early warning system. This will meet the NDSP 2030 target of 100% of all provinces receive multi-hazard early warning system. The radar will directly benefit about 50% of all Vanuatu’s population.

Furthermore, the CBA recommends the C-band option was the most suitable radar system for Vanuatu. The project has set aside a total of USD \$3.3 million to fund the commissioning of the equipment and an additional USD \$10,000 per month for its operations and maintenance.

The presentation noted benefits of the radar to Vanuatu is enormous and the value added to the current early warning systems within the Vanuatu Meteorology and Geo-Hazards Department is huge but also the downstream positives on the communities and sectors who will use the radar information to inform decision making during disaster events. The benefits of the radar goes beyond the five target sectors namely, Agriculture, Water, Tourism, Fisheries and Infrastructure but also Civil Aviation, National Disaster Management Office, Maritime Safety and Ports Authority, Environment and Resource Conservation, Ocean and Marine sector, Health, Education and Social Services.

Mr Seuseu also discussed technical elements of a weather radar specifically on the different types of radar systems on the market right now, the frequency and bandwidth in which the radar will operate, the site allocated by VMGD for the installation of the radar to a few.

The communication and dissemination pathways to users at the national and sector, provincial and area council levels was also discussed in the meeting. This includes a web platform, phone App, SMS, radio, social media platforms, short videos etc.

Finally, the Acting Manager also outlined the next steps of the consultation phases and requested the meeting consider the formation of a multi-agency task team to provide information and technical guidance to VMGD and the project. The task team will consist of all important agencies such as Lands Department, NDMO, PM Office, Department of Local Authorities (DLA), Civil Aviation Authority (CAA), Office of the Chief Government Information Officer (OGCIO), Telecommunications Regulator for Broadcasting and Radio (TRBR) and Department of Finance. Other agencies can be brought in when required.

The meeting took a break during the lunch hour. After a Q & A session that follow subsequently after the presentation.

[Session 5.1: Focus Group Discussions](#)

The meeting reconvened after lunch and the participants from various agencies were divided into 10 groups. In each group, an agency representative was paired with a senior staff from VMGD and the PMU who were facilitators and note takers for the FG discussions.

The focus groups discussions on the weather radar were guided by the pre-developed questionnaire developed by the PMU (See Annex A). The questionnaire sought to solicit views of each agency representative on the value and use of the radar and it the new technology add value to their work, planning and functions.

Additionally, the questionnaire sought to gauge support from the agencies on the operations, upkeep, ongoing maintenance and revenue generation for VMGD to support sustainability of the weather radar functions.

Session 5.2 Focus Group Report Back

The following section contains main discussions points raised by each focus group.

Agency Name	Summary of Discussion
a. Civil Aviation Authority	<ul style="list-style-type: none">• CAA expressed support to the project and the radar.• CAA recommends that VMGD to re-evaluate the radar site, CAA will provide support and assistance in land identification.• CAA advised VMGD to provide more information on the height of the tower as it may be an obstacle for the flight path to the Port Vila International Airport (Bauerfield Airport)• In line with CAA regulations around safety, there needs to be a light installed on the Radar tower, for night time flights to know obstacles are in the flight path. Similar to adjacent Vodafone and Digitel telecommunications tower onsite.• There needs to be an aeronautical publication• Currently, VMGD is not a certified organisation, therefore, they are currently looking at certifying VMGD• CAA further mentioned that revenue can be obtained from over flights• Van-KIRAP Team will further discuss with CAAV• CAAV will consult with technicians and others outside whether the position of the radar will affect any changes of the aerodrome and whether it will affect flight paths.• After consultations they will inform everyone in order to ensure a sound judgement on the location of the Radar and further for easier access for maintenance purposes
b. Airport Vanuatu Limited	<ul style="list-style-type: none">• Rowland mentioned that the site will be an obstacle for the Airport• The Radar must have a light and further it must be published for all users to be made aware• He also mentioned that CAAV will need to work closely with VMGD to certify VMGD• Currently VMGD is not certified• Furthermore, Rowland explained that cyclones develops in Torres, and we need to be able to explain to the people of Torres/ Sola why they are not covered (via the area of the radar), he reiterated that this service is for everyone.• He further mentioned that this equipment will enhance safety for the people of Vanuatu

**c. Telecommunications
Regulator for Broadcasting
and Radio**

- The points raised by TRBR regarding the C-Band interference with other equipment.
- It was agreed that there will be a one to one meeting with each agencies, on the other hand there is a written form for each agency to fill out
- He mentioned that the Radar must be operated at the right frequency.
- Every equipment that uses radio equipment must meet international standards and operates at the right frequency and used for the right purposes, TRBR will then approve and further they will need to work closely with Customs Department
- TRBR requests that we identify the Supplier then connect the supplier with TRBR, then include CAAV, AVL in order the ensure that it has the right frequency.
- The Supplier needs to provide technical specifications that is within the band and that it will not cause interference with other services i.e radio apparatus license
- Furthermore, awareness must be made to the public that it is a safe equipment
- Two certificates will be provided by TRBR. One is for Band C and the other is for the other services that it will be able to provide
- TRBR will also work closely with us and the supplier to provide technical specifications
- He further questioned that currently there are two towers located on the same site, one is 30 metres and the other is 35 metres. He questioned whether the radar will be able to scan the other two towers.
- Sunny enquired whether there is a fee
- TRBR informed that a letter from the DG MoCC to the Regulator to request for a waiver in fees
- TRBR requested that URA be included in the discussions of regulation the power supply to the site of the Radar
- Sunny requested that a national Coordination Team for the Radar will need to be formed to continue working as an Advisor in providing all the technical advises to the Technical Working Group. This will also include Foreign Affairs and URA .

Other Discussion Points

- There could be potential interference to the existing equipment,
- Therefore we need to consider installing a light up on the radar.
- Consider obstruction light on top of the tower for safety of aircraft,
- Furthermore, AVL is in a position to utilize the services too
- It was discussed that VMGD will be Certified under Rule 1.74
- AVL requests that they be included in all communication before purchasing of Radar Equipment for technicality purposes
- The equipment on the other hand needs to be checked and verified together with CAAV and AVL. Furthermore, maintenance needs to be looked closely by CAAV, Airports Vanuatu Limited and VMGD
- It was further discussed that CAAV check on performance based navigation Aids/charts, that we have been utilizing for ages, challenges is that the Radar does not affect the existing navigational aids

Session 6: Official Closure

The Acting Director acknowledges everyone who participated and on behalf of VMGD, he thanked everyone who took time to be part of the discussions this morning and he affirm that we will continue to work together, despite the difficulties, the project is important to benefit the people of Vanuatu. Once again thank you on behalf of the Department and the Project Team for everyone's contributions.

There being no further issue to discuss the meeting is hereby closed at 12.45hrs and the closing prayer was made by Connie Sewere.

3. MEETING OUTCOMES.

The meeting outcomes:

1. The Office of the Minister for Climate Change and Meteorology is fully supportive of the weather radar initiative and commends the Secretariat of the Pacific Regional Environment Programme for the funding support via the Green Climate Fund and the Van-KIRAP Project.
2. The meeting noted overwhelming support from all participating agencies for the installation and commissioning of the weather radar.

3. Increase understanding of the national agencies and government department of the Van-KIRAP Project and the radar activity.
4. Better knowledge of the regulatory requirements concerning the weather radar and the support that is available for VMGD to commission, maintain and operate a radar in Vanuatu.

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Appendix A

Appendix A The full Feedback Form:



Vanuatu Weather Radar Dialogue for National Stakeholders.

Date: Friday 4 June 2021. **Venue:** VMGD Conference Room

- Feedback Form -

A. Personal Details

Name:	Designation:
Email:	Office telephone/Mobile:
Ministry:	Department:

B. Radar feedback (please tick the appropriate box)

B.1: Based on the radar presentation do you think the radar will benefit Vanuatu.	Yes	No
B.2: Do you support this radar development?	Yes	No
B.3: Would you need direct access to the weather radar data for decision making?	Yes	No
B.3: Under your respective ministry/departments, what are important legislative/policy requirements that VMGD must consider with regards to this development?	a. Name of Act/Regulations (if any)	

B.4: Are there any other important consideration from your Ministry's standpoint that is essential for the radar	Please outline below:

C. Technical Focal Point for follow-up meetings

Please provide a technical focal point that VMGD will liaise with directly with regards to any follow-up meetings. DGs and Directors will be copied in all communications with regards to follow-up meetings with the respective agencies.

Name:	Designation:
Email:	Office telephone/Mobile:

D. Any other feedback or comments

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Appendix B

Appendix B the workshop agenda.

Time	Agenda item	Facilitator / Presenter
8:30 am	Registration.	Van-KIRAP PMU.
9:00 am	SESSION 1 Welcome and opening prayer.	VMGD Director Montin Romone.
9:15 am	SESSION 2 Opening remarks.	Minister of MoCCA. (TBC)
9:30 am	SESSION 3 Introduction to the Vanuatu Klaemet Blong Redy, Adapt mo Protekt project (Van-KIRAP) and Objectives of the Workshop.	Mrs Moirah Matou Van-KIRAP Project Manager.
9:50 am	SESSION 4 Update on the Weather Radar Cost Benefit Analysis.	SPREP Sunny Seuseu.
10:30 am	Morning tea break.	Everyone.
10:45 am	SESSION 5 Group discussions.	VMGD Managers Van-KIRAP.
11:45 am	SESSION 6 Reporting back and open discussions on key regulatory requirements and costs	Agency reps
12:45 pm	Lunch break and close	VMGD

Appendix C

The workshop presentation and powerpoint slides can be accessed from:

https://drive.google.com/drive/folders/163la6e_n_kgeJOArKxIx-4gT4F-iJtiL?usp=sharing