

Annex 1 – Template for CREWS Action Presentation Note

Action Title	<i>[Name of the Action]</i> Assessment and verification of accuracy for warnings issued during tropical cyclones Judy and Kevin and other hazards and impacts on Vanuatu's MHEWS.
Country(ies)	<i>[Country or countries, in the case of a regional Action]</i> Republic of Vanuatu
Partner Country Entity / Entities	<i>[Ministry/Agency/Entity within Partner Country/ies; main point(s) of contact and contact details]</i> Vanuatu Meteorology and Geo-Hazard Department (VMGD) Ministry of Climate Change Adaptation, Meteorology, Geo-Hazards, Environment, Environment, Energy and Disaster Management; P. O. Box 9074; Port Vila; Vanuatu; Telephone (landline): +678 22932; Telephone (mobile): +678 7784930; Email: lantfalo@meteo.gov.vu/lantboaz@gmail.com
Implementing Partner (if submission by Implementing Partner)	<i>[Implementing partner, including main point(s) of contact and contact details]</i> World Meteorological Organization (WMO) Henry Taiki, WMO Representative for the South-West Pacific Email: htaiki@wmo.int Telephone: +685 7525706 (Mobile); +685 25706 (Landline) & +685 21929 Ext 241
Implementing Partner Requested (if submission by Partner Country)	<i>Select at least 1:</i> <input type="checkbox"/> World Bank/GFDRR <input checked="" type="checkbox"/> WMO <input type="checkbox"/> UNDRR <input type="checkbox"/> No preference <i>[Please note that the requested Implementing Partner is not guaranteed; the Secretariat will review the nature of the Action and determine the most appropriate Implementing Partner, and the Implementing Partner will also need to confirm interest and availability to proceed with the Action Presentation Note in partnership with the Partner Country]</i>
Action Type	<i>Select at least 1:</i> <input type="checkbox"/> Continued Assistance <input checked="" type="checkbox"/> Analyses and Assessments <input type="checkbox"/> Advisory Services
Early Warning System Element(s) Supported	<i>Select at least 1:</i> <input type="checkbox"/> Monitoring, detection, analysis and forecasting of hydro-meteorological hazards providing lead-times for action <input type="checkbox"/> Dissemination of timely and authoritative warnings <input checked="" type="checkbox"/> Preparedness and response plans triggered by warnings and weather and climate predictions <input checked="" type="checkbox"/> Disaster risk knowledge based on the systematic collection of data and disaster risk assessment <i>[Optional: provide additional information as relevant]</i>

<p>Contributions to CREWS Programming Principles and Results Framework</p>	<p>CREWS Programming Principles addressed: <i>Select all relevant:</i> <input checked="" type="checkbox"/> People-centered <input checked="" type="checkbox"/> Gender-responsive <input type="checkbox"/> Promotes Coherence <input checked="" type="checkbox"/> Leverage</p> <p>CREWS Results Framework Outputs to which the Action is expected to contribute to: <i>Select at least one:</i> <input type="checkbox"/> NMHSS' service delivery improved, including the development of long-term service delivery strategies and development plans <input checked="" type="checkbox"/> Risk information to guide early warning systems and climate and weather services developed and accessible <input type="checkbox"/> Info. and comm. tech., including common alerting protocols, strengthened <input type="checkbox"/> Preparedness and response plans with operational procedures that outlines early warning dissemination processes strengthened and accessible <input type="checkbox"/> Knowledge products and awareness programmes on early warnings developed <input type="checkbox"/> Gender-responsive training, capacity building programmes provided</p> <p>CREWS Programme Indicators to which the Action is expected to contribute to: <i>Select at least one:</i> <input checked="" type="checkbox"/> Loss of life <input checked="" type="checkbox"/> Forecasting and warning capacity <input checked="" type="checkbox"/> Access to early warning <input checked="" type="checkbox"/> Use of risk information <input checked="" type="checkbox"/> Capacity to disseminate warnings <input checked="" type="checkbox"/> Capacity to prepare for and respond to warnings</p> <p><i>[Optional: provide additional information as relevant]</i></p>
<p>Specific Action and Objectives</p>	<p><i>[Max. 250 words describing the requested Action and the Objectives]</i></p> <p>Specific Action: The purpose of the assessment is to contribute to improving Vanuatu's early warning system and services (EWSS) by offering national institutions relevant information that will support existing efforts towards impact-based forecasting and warning services (IBFWS) such as those under implementation in the CREWS Pacific SIDS 2.0 project. To achieve this, the Action expects the Vanuatu Meteorology and Geo-Hazard Department (VMGD) and the National Disaster Management Office (NDMO) to collect and analyze data and information in the areas of: gale, storm and hurricane force winds; storm surge and coastal inundation; flooding and rainfall induced landslides; damaged infrastructure and vegetation; reception and dissemination of, preparedness and responses to, warnings, associated with cyclones Judy and Kevin that impacted Vanuatu in February and March 2023. The target communities of the assessment will be provinces that were affected by those cyclones. These will be used to discuss with communities their capacities to access, understand, prepare, early actions to warnings. The outcomes will contribute to future EW4ALL initiative activities in Vanuatu.</p> <p>Objectives (1) Assess communities' capacity to prepare and response before, during and after cyclones Judy and Kevin and other hazards impacting them and identify actions to increase awareness of, and preparedness, responses/early actions to, associated risks. (2) Assess warnings messages effectiveness, communities' capacity and capability to receive, absorb, understand and use these warnings for decision-making, to increase confidence in warnings issued by VMGD. (3) Assess and identify of communities' capacity to engage and participate in EWSS including receiving and disseminating warnings and public awareness.</p>

<p>Need and Rationale</p>	<p><i>[Max. 250 words articulating why the Action is needed and how it contributes to the country's early warning system efforts; if Cont. Ass., how it builds on CREWS Project]</i></p> <p>Vanuatu frequently impacted by cyclones. VMGD has established EWSS for cyclones and impacts. VMGD provides information on tropical lows depressions and cyclones in three phases- information, advisory and warnings. It also provides mapping tool "Tropical Cyclone Tracking Map" to track cyclones' positions and directions.</p> <p>When cyclones Judy and Kevin impacted Vanuatu the EWSS resilience was tested, including hydro-meteorological monitoring equipment and the Tropical Cyclone Tracking Map. No data on wind speed/direction and precipitation are available in warnings issued by VMGD. The prediction of rivers' flows, levels, discharges, overflows and flooding in warnings are based on rainfall estimates using satellite imagery. Predicting states of coastal waters, waves and storm surges heights and inundation are estimated based on wind speed and direction, atmospheric pressure and intensity of cyclones. There are no monitoring systems to measure rivers' levels, flows and discharges, wave heights and other coastal water parameters to help predict rivers' catchments and seas' behavior and impacts. The Action will collect information from communities' experiences and observations during the cyclones and other hazards such as La Niña phenomenon through interviews, consultations, survey questions. It will also collect information on damages to infrastructure, the environment such as vegetation. The information collected from the communities will then be assessed with corresponding information in warnings.</p> <p>The outcomes will contribute to VMGD IBFWS for cyclones and associated risks by integrating information on infrastructure, environment with warnings, and build upon IBFWS-related training and consultations being implemented in Vanuatu as part of the CREWS Pacific SIDS 2.0 project.</p>
<p>Alignment</p>	<p><i>[Max. 250 words articulating the alignment between the requested Action and existing/ongoing projects, programs, plans and commitments (e.g., EWS projects supported by bilateral or multilateral funds, NAP, NDC, efforts within the Santiago Network)]</i></p> <p>The Action has potential for replicability in other Pacific islands in terms of IBFWS and could therefore lead to new activities for future CREWS projects in the region; moreover, it supplements and contributes to CREWS Pacific SIDS 2.0 project's activity to review VMGD Strategic Plan for Meteorology and to implement IBFWS in Vanuatu. It is also aligned with the following initiatives:</p> <p>(1) Meteorology, geo-hazard and climate change Act No. 25 of 2016¹: Promotes the capacities of communities to understand and response to risk arising from weather events.</p> <p>(2) Vanuatu 2030: The Peoples Plan (National Sustainable Development Plan 2013-2030)²: National development aspiration to enhance resilience to climate change and disasters.</p> <p>(3) CCDRR Policy (2022-2030)³: Strategic priority 7.4.3 actions include risk reduction initiatives owned and driven by communities.</p> <p>(4) NAPA⁴: Links to early warning services on rainfall, floods and droughts.</p> <p>(5) INDC⁵: Meteorology and climate information is one of the sectoral adaptation contributions.</p> <p>(6) VanKirap⁶: GCF funded national project for Vanuatu, support climate information for development.</p> <p>(7) Weather Ready Pacific Programme⁷: A decadal investment in weather and hydrology services a key vehicle for delivery of EW4ALL in the Pacific as agreed to at the Sixth Pacific Meteorological Council (PMC-6).</p> <p>(8) EW4ALL Initiative: There's an opportunity to utilize or frame the activities under this Action as contribution to EW4ALL and benefit from the tools and partners available under this initiative.</p>

¹ http://www.paclii.org/vu/legis/num_act/mghacca2016410/

²

https://policy.asiapacificenergy.org/sites/default/files/Vanuatu%20Sustainable%20Dev.%20Plan%202030-EN_0.PDF

³ <https://www.nab.vu/sites/default/files/documents/National%20CCDRR%20Policy%202022-2030.pdf>

⁴ <https://unfccc.int/resource/docs/napa/vut01.pdf>

⁵ <https://unfccc.int/sites/default/files/NDC/2022-08/Vanuatu%20NDC%20Revised%20and%20Enhanced.pdf>

⁶ <https://www.sprep.org/project/climate-information-services-for-resilient-development-in-vanuatu>

⁷ https://www.pacificmet.net/sites/default/files/inline-files/documents/Weather%20Ready%20Pacific%20-%20Decadal%20Program%20of%20Investment%20Executive%20Summary_0.pdf

Timeframe	<p><i>[Projected duration, in months; must be less than 12 months or include justification for longer duration (e.g., if linked to another project that extends beyond 12 months)]</i></p> <p>Vanuatu is formed by 80 islands, stretching 1,300 kilometers from north to south; and combined land area of 12,190 km² and maritime exclusive economic zone (EEZ) of 680,000 km². A population of 209,920 where 80 percent of the population live in rural villages. There are about 42 river catchments on nine of the islands. Most of these were devastated by the twin cyclones. Staff will travel to these islands and communities affected by these cyclones to conduct the assessments.</p> <p>Four interlinked components and the Action’s duration is about 12 months. The Implementing Partner through the project will make necessary arrangements and work with VMGD to conduct the assessments. Refer to more information as presented below.</p> <p>Component 1 (1 month): To organize Implementing Arrangement (IA) between VMGD and WMO and transfer funds from WMO to VMGD. To set up peer review team comprising of experts and representatives from WMO, VMGD and advanced NMHSs who are engaged in disaster risk reduction services in the respective organizations. To discuss, draft and approve survey questions to guide collection of data and information; to procure equipment⁸ for collecting data and information. To develop and print awareness materials (posters, pull-up banners, video, etc) to take to communities.</p> <p>Component 2 (5 months): To organize national consultation workshop to prepare for data and information gathering. To actually carry out data collection, analyses, assessment, verification and correlation in areas of gale, storm and hurricane force winds, storm surges and coastal inundation, flooding and rainfall induced landslides, communities’ capacities to access, receive, absorb, understand, disseminate, prepare and response to warnings associated with cyclones Judy and Kevin and other hazards such as La Niña phenomenon. To carry out this by community-based consultation approaches such as measurements, observations, interviews, survey questions. Consultations with communities include people with disability and other vulnerable groups. To prepare draft report including scientific paper/journal. To prepare and develop awareness materials (posters, pull-up banners, video, etc) resulted from consultations and discussions with communities.</p> <p>Component 3 (4 months): To present draft report to communities and stakeholders involved in the initiative during a consultation workshop. To do second travels to only selected islands and communities. To update the draft report considering comments from communities and other stakeholders; peer review of the draft scientific paper/journal.</p> <p>Component 4 (2 months): To prepare final report, scientific paper/journal, awareness materials and financial report. To publish, print, present and launch the final report, journal and awareness materials. To prepare the financial report for the Action and submit to WMO.</p>

⁸ Equipment including the following: (1) “dumpy level” which is also known as “builders’ level” including a tripod for automatic levelling, telemeter rod staff (5 meters), tape measure (100 meters) to measure storm surges elements and riverine flooding with regards to inundation distance from the shorelines; (2) GPS devices to collect storm surges inundation location at various points and the data will be used to create detailed maps of areas affected by storm surges; (3) Laser distance measure (LDM) device measurement to measure storm surges inundated location points from the shorelines; (4) rivers flows measuring equipment; and (4) other safety equipment required to operate these equipment in rivers’ catchments and coastal areas.

Action Cost (To be completed by Implementing Partner)

[Action amount requested in USD, including Implementing Partner fees]

Table 1 presents the project’s budget as per output including implementing partners (WMO) fees. It provides detailed information on the project’s outputs, related activities and budget. Table 2 provides the summary outputs and budget.

Table 1: Budget related to project’s outputs including implementing partners fees.

Outputs	Budget (USD)
1.1. Action’s implementation arrangement established and equipment required for assessment procured. Discuss and sign IA between WMO and VMGD; set up VMGD Team and develop related ToR; develop and approve survey questions; establish peer review team and develop related ToR; procure equipment including virtual video conferencing facilities; develop awareness material on VMGD’s works for communities; organize travels by air and seas to the islands and communities including purchasing of tickets, etc.	43,000
2.1. Organize national consultation workshop. Data and information collected, analyzed, assessed, verified and correlated. Conduct consultations, interviews, discussions, meetings with communities, women, children, young boys and girls, people with disability (sight, hearing, mobility), and elderly people; assess communities’ capacities to access, receive, absorb, understand, disseminate, prepare and response to warnings; draft and make draft report and scientific paper/journal available; develop and print of awareness materials from communities’ consultations.	60,000
3.1. Draft report presented to communities and other stakeholders involved in the initiative via national consultation workshop. Draft scientific paper/journal peer reviewed. Update draft report and draft scientific paper/journal; second travels via air, land and seas to communities but only on selected islands.	48,000
4.1. Final report, scientific paper/journal and awareness materials completed, published, printed, made available, presented and launched. Prepare final report, scientific paper/journal and organizing launching and presentation.	49,000
A. Total Project Costs	200,000
B. Project Implementing Partner Fees	26,000
A + B. Total Project Amount for Financing Requested	226,000

Table 2: Summary of Table 1

Outputs	Summary of project’s outputs	Budget (USD)
1.1	Action’s implementation arrangement established and equipment procured.	43,000
2.1	Data and information collected, analyzed, verified and correlated through consultations and measurement; draft report prepared and made available; draft scientific paper/journal prepared and made available.	60,000
3.1	Draft report presented to communities and other stakeholders. Scientific paper/journal peer reviewed.	48,000
4.1	Final report completed, approved, published, printed and launched.	49,000
A. Total Project Costs		200,000
B. Project Implementing Partner Fees		26,000
A + B. Total Project Amount for Financing Requested		226,000

Attachments	<i>[Country Endorsement Letter or similar⁹ if submission by Implementing Partner]</i> <i>[Detailed Activity List to be provided by Implementing Partner]</i> <i>[Detailed Budget to be provided by Implementing Partner]</i>
--------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

⁹ This can include existing Letters or Frameworks in place between the Implementing Partner and Partner Country or Countries in the event that the scope of engagement includes the specific early warning system Action being requested. For Regional Action requests, the Endorsement Letter or similar existing Letter or Framework can originate from relevant regional institutions.