



CREWS PROJECT PROGRESS REPORT

(July - December 2022)

1. Project title	Strengthening Hydro-Meteorological and Early Warning Systems in the Pacific (CREWS Pacific SIDS 2.0)	2. Project reference CREWS/RProj/05/Additional Financing Pacific
3. Implementing Partners involved in the project	World Meteorological Organization (WMO); World Bank Global Facility for Disaster Reduction and Recovery (WB GFDRR); United Nations Office for Disaster Risk Reduction (UNDRR)	4. Operational Partners involved in the project Secretariat of the Pacific Regional Environment Programme (SPREP); The Pacific Community (SPC); Australian Bureau of Meteorology (BoM)
5. Project Duration/Timeframe (from year - to year)	Jan 2021-Dec 2024	6. Total Funding Approved by Steering Committee (in US dollars), including fees USD 4,799,000
7. Reporting focal point(s) from Implementing Partners	WMO: Lina Sjaavik lsjaavik@wmo.int WB GFDRR: Jian Vun jyun@worldbank.org Simone Esler sesler@worldbank.org Andrew Hurley ahurley@worldbank.org UNDRR: Nazgul Borkosheva Nazgul.borkosheva@un.org	
8. Project overview	<p>Please include objectives, key project deliverables, leveraging, contextual information/statistics, significant events during the reporting period <u>in bullet points</u>. (max 250 words)</p> <p><u>Objectives and key project deliverables</u></p> <p>CREWS Pacific SIDS 2.0 builds upon the CREWS Pacific SIDS project (2017-2022) and aims to upscale its efforts in the Pacific region. The project will enhance regional and national capacity and systems for risk informed services related to extreme and high impact hydro-meteorological events in the Cook Islands,</p>	



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	<p>Federated States of Micronesia (FSM), Fiji, Kiribati, Nauru, Niue, Republic of Marshall Islands (RMI), Palau, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu and Vanuatu.</p> <p>The project has five main outcomes that strengthen integrated and inclusive early warning systems that are part of the region’s stronger and more comprehensive human security and resilience agenda:</p> <ol style="list-style-type: none"> 1. Improved governance; 2. Enhanced product development and accessibility; 3. Enhanced service delivery; 4. Enhanced communication and awareness programmes on Early Warning Systems (EWS); and 5. Improved integration of gender including people living with disabilities across the EWS chain. <p><u>Leveraging</u></p> <p>The project links closely with the following regional initiatives, leveraging approximately USD 65M:</p> <ul style="list-style-type: none"> • Climate and Oceans Support Program in the Pacific (COSPPac) • Tuvalu Coastal Adaptation Project • Recovery Support for Tropical Cyclone Pam • Intra-ACP Climate Services and Related Applications Programme (ClimSA) <p><u>Key events during reporting period</u></p> <p>Kick-off meeting on technical assignment for <i>Hydrometeorological Risk Analysis, Warning Production Software, Warning Design and Communication for Impact-Based Forecast and Warning Consultancy Service for Samoa and Tonga</i> (Dec 13, 2022). Dr. Luteru Tauvale, Assistant CEO of Samoa Met Division (SMD) and Mr. Silipa Mulitalo, Principal Officer of SMD participated in the kick-off meeting. The outcome was an agreed work plan for the technical assignment with follow-up technical meetings planned and an in-country visit during the week of Feb 20-24.</p>
<p>9. Progress summary</p>	<p>What has been achieved during this reporting period? - Please list in bullet points the most significant and tangible outcomes? (max 250 words)</p> <ul style="list-style-type: none"> • National Strategic Plan (NSP) and National Framework for Weather, Water, Climate and Oceans Services (NS-FWCS) for Tonga, the Solomon Islands, Samoa and Vanuatu - The NS-FWCS will focus on the entire value chain for the production and application of weather, water, climate, and ocean services - WMO <ul style="list-style-type: none"> - NS-FWCS for Tonga has been drafted, reviewed and finalized and is currently being prepared for

	<p>printing before its launch and distribution.</p> <ul style="list-style-type: none"> - NS-FWCS for the Solomon Islands is currently being developed by the contracted consultant. In-country consultations will take place in early Q1 2023, and the finalized plan is expected to be completed in Q1. - A ToR for the development of the NS-FWCS for Samoa has been circulated for review and approval. This activity is expected to be finalized in Q1 2023. - The Terms of Reference (TOR) for the NS-FWCS for Vanuatu has been finalized, and consultants are expected to be hired and start their duties in Q1 2023. - Nauru NS-FWCS discussions started, however, due to strict COVID-19-related restrictions the NMHS has requested to move this activity to 2023. - The Tonga Meteorological Act 2017 Review discussions have started, and the TOR has been prepared in line with the concept note, this activity is expected to kick start in 2023 Q1. <ul style="list-style-type: none"> • Samoa`s Ground Water Strategy - WMO <ul style="list-style-type: none"> - The Samoa Water Resources Division has requested support from the CREWS Pacific SIDS 2.0 project to support the development of a water resources database. Further discussions are expected to be held during the first semester of 2023. • Solomon Islands Impact Based Forecast and Early Warning Services (IBFWS) - WMO <ul style="list-style-type: none"> - A consultant has been contracted to develop the IBFWS plan for the Solomon Islands and work is well underway. A workshop on the implementation for IBFWS in the Solomon Islands, aimed to explore the global EWS value cycle and strategic partnerships in support of a coordinated action plan for Early Warning System for All (EWS4A) in the country has been scheduled and will take place in Honiara 23 - 27 January 2023. • Implementation of a high-resolution Numerical Weather Prediction (NWP) mesoscale model in Fiji. The focus under this activity is the implementation of a high-resolution NWP mesoscale in Fiji which will involve capacity development on nowcasting system, provision of access to high quality products and support tools along with the establishment of verification and validation mechanism for the forecasting and warning system - WMO
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	<ul style="list-style-type: none"> - A mission was organized between Indonesia's Meteorology, Climatology and Geophysical Agency (BMKG) and Fiji Meteorological Services (FMS) on the assessment of existing NWP Limited Area Model (LAM) conditions, installation and training of FMS staff, between 21 November to 9 December 2022. • National Climate Outlook Fora (NCOF). NCOFs aim to bring together and address the needs of key sectors of socio-economic significance such as agriculture and food security, water resources, energy production and distribution, public health, disaster risk reduction and response etc. who are dependent on climate outlook products and services to support sustainable development- WMO <ul style="list-style-type: none"> - The Solomon Islands Meteorological Services (SIMS) in collaboration with FAO, and the Ministry of Agriculture, conducted NCOF-3 from 17 to 18 November 2022. - Preliminary discussions have been held between WMO and Tokelau on the organization of the country's first NCOF in 2023. • Sub-season to seasonal climate prediction and training on tropical cyclone seasonal forecasts - WMO/BoM <ul style="list-style-type: none"> - CREWS Pacific SIDS 2.0 project Implementing Arrangement between the World Meteorological Organization (WMO) and the Commonwealth of Australia as represented by the Bureau of Meteorology (BoM) has been signed and entered into force on 17 November 2022. - Development of training modules for conducting national training on use of WMO GPC LRFs (Global Producing Centre for Long-range Forecasts) Sub-seasonal to Seasonal (S2S) climate prediction products from ACCESS-S (the Australian Community Climate Earth System Simulator - Seasonal) continued. - Revision of the Southern Hemisphere Tropical Cyclone historical data archive continued. - Quality control for tropical cyclone data for the 2018-2019 and 2019-2020 tropical cyclone seasons obtained from the Regional Specialised Meteorological Centre (RSMC) Nadi, Fiji continued. - Development of training modules for conducting national training in tropical cyclone seasonal forecasting continued. • Gender-responsive and disability inclusive early warning early action - UNDRR <ul style="list-style-type: none"> - A draft guideline on integrating gender and disability into early warning and early action was
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	<p>developed based on the results of the scoping study on gender-responsive and disability inclusive early warning systems in the Pacific. The guideline is aimed at supporting the technical agencies such as National Meteorological and Hydrological Service (NMHSs) and National Disaster Management Offices (NDMOs) to ensure gender and disability are considered across all four elements of the EWS. It is currently under the revision of technical agencies and is expected to be finalized during Q1 of 2023.</p> <ul style="list-style-type: none"> - A scoping study on gender-responsive and disability inclusive Early Warning Early Action (EWEA) is finalized. The study identified gaps and needs in mainstreaming gender and disability into current policies and practices, services and tools, and provides recommendations to improve future actions on early warning and early actions in the Pacific region. - A practical guide to conduct assessments on gender-responsive and disability inclusive EWEA along with a set of questionnaires for community consultations and key informant interviews were developed. This helps to replicate similar scoping studies and assessments in other countries or communities. <ul style="list-style-type: none"> • Awareness raising – UNDRR <ul style="list-style-type: none"> - A technical support was provided to the NDMOs in Fiji and Tonga to mark the International Day for Disaster Risk Reduction which focused on Target G of the Sendai Framework: “Substantially increase the availability of and access to multi-hazard early warning systems and disaster risk information and assessments to people by 2030.” - Financial and technical support was provided to the Mineral Resources Department of Fiji and National Emergency Management Office (NEMO) in Tonga to mark the World Tsunami Awareness Day through radio broadcasting, webinars and community drills. • Capacity building – UNDRR <ul style="list-style-type: none"> - UNDRR supported the participation of the delegations and representatives from the NDMOs and
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NMHS from Cook Islands, Fiji, Kiribati, Nauru, Samoa, Solomon Islands, Tonga, Tokelau and Vanuatu at the high-level meetings, including the Inaugural Pacific Disaster Management Ministers meeting in Fiji and the Asia-Pacific Ministerial Conference on Disaster Risk Reduction in Australia in 2022. Enhancing multi-hazard early warning systems in the Pacific was one of the main topics discussed in both events.




- IBFWS Samoa and Tonga. The goal of Impact-based forecasting is to ensure the timely dissemination of accurate and easily understandable weather, climate and water information, and delivery to the public and economic sectors. – WB-GFDRR
 - Recruitment of a technical expert team for Hydrometeorological Risk Analysis, Warning Production Software, Warning Design and Communication for Impact-Based Forecast and Warning Consultancy Service for Samoa and Tonga. The inception phase has begun, and initial meetings between RED and Tonga Meteorology Service, and RED and Samoa Meteorology Division have taken place.
 - Identification of a technical expert for reviewing Numerical Weather Prediction and Standard Operating Procedures for Samoa and Tonga, and making recommendations on the use of existing models and products.
 - Recruitment of a technical expert team for Impact-Based Forecast and Warning User Research for Samoa and Tonga. The user research is planned to be carried out in the next reporting period.
 - Support to the Government of Tonga to develop Terms of Reference for Impact-based Forecasting and Warning Experts to be financed under the Pacific Resilience Program – Tonga Project.
 - Development of education and awareness raising materials for Samoa. These include a poster to promote the development of impact-based warnings in Samoa for use during community engagement activities; and Tropical cyclone educational awareness materials to demonstrate the typical impacts associated with cyclone levels.
 - Technical assistance for the development of Terms of Reference for Government of Tonga to

	recruit additional technical consultants to implement the delivery of IBFWS.
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10. Project Performance

Interpretation of color coding		
High		Good progress; on track in most or all aspects of delivery
Medium		Moderate progress or on track in some aspects of delivery
Low		Less than moderate or poor progress. Not on track in critical areas of its delivery. Requires remedial attention

	Rate of expenditure	Rate of delivery	Alignment of Objectives
Coding			



<p>Narrative</p>	<p>The total expenditure of the project to date is USD 1,184,661, of which:</p> <p>WMO: USD 662,766</p> <p>WB: USD 183,755 (28%) disbursed; 217,305 (34%) committed</p> <p>UNDRR: USD 304,590</p>	<p>The easing of COVID-19 restrictions and opening borders for international travels by the Pacific island governments in the second half of 2022 enhanced better coordination and collaboration with key project stakeholders and enabled implementation of planned activities.</p> <p>WB - The pace of activities is expected to accelerate as Samoa and Tonga have opened their international borders during this reporting period and a technical team has been recruited to support activity implementation. The team is discussing internally whether the activity implementation closing date can be extended.</p>	<p>The project remains aligned to the objectives.</p>
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11. Risk Status

<p>Risk Status</p>	<p>What is the current risk status as compared to what was identified in the project proposal?</p> <p>The risk status of the project remains low to medium as identified in the project proposal.</p> <p>Other potential risks include the followings:</p> <ol style="list-style-type: none"> 1. Severe natural hazards, such as tropical cyclones or volcanic eruption that may shift government's priorities from CREWS activities to immediate response actions or hinder communications with countries. 2. Time and availability-related issues by beneficiary NMHSs, NDMOs and other in-country, who may be busy with
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	<p>other commitments and/or priorities. This could affect technical assistance initiatives in place to support CREWS.</p> <p>3. Change of leadership or directorship of beneficiary NMHSs, NDMOs and other national entities, such as the change of government and line Ministries after the elections in Fiji, which may slow down the decision making and planning of activities in the country in Q1 of 2023.</p> <p>4. Time and availability- related issues of technical assistance teams affecting ability of team to fulfil TOR.</p> <p>5. CREWS closing date for WB-led activities (October 2023). The challenges caused by COVID-19 have resulted in delayed engagement of the required technical assistance teams to deliver CREWS objectives. The current closing date will potentially result in incomplete deliverables.</p> <p>6. Travel restrictions imposed as a result of further COVID-19 outbreaks.</p>
<p>Measures to address</p>	<p>What mitigation measures have been developed to address the risk status? <u>In bullet points</u></p> <ul style="list-style-type: none"> • The project team remains in close and regular dialogue with the beneficiary NMHSs, NDMOs, in-country and regional implementing agencies. • With the ease of COVID-19-related activities, activities are slowly shifting towards face-to-face, and/or in hybrid format. NMHSs of Fiji, Samoa, Palau, RMI, Niue and Tonga have received teleconference equipment under the CREWS Pacific SIDS project 2017-2022. More NMHSs, including NDMOs, may need assistance with virtual conference equipment under CREWS Pacific SIDS 2.0 project. • UNDRR continues to engage with key government stakeholders such as NDMOs and NHMS to discuss and plan activities for 2023. • WB GFDRR team continues to engage with the Met organisations through ongoing projects (such as the Pacific Resilience Program (PREP) where investment projects are being implemented in both countries). • WB GFDRR team continues to engage regularly with the technical assistance team to ensure team availability and deliverables remain on track. • WB GFDRR to discuss internally options to extend the current closing date and then inform WMO, UNDRR.



12. Contributions to CREWS Output(s)

(use number for activities and products and % for project component completion)

12.1 National Output(s)

CREWS Output(s) 1: National Meteorological and Hydrological Services (NMHSs) service delivery improved, including the development of long-term service delivery strategies and development plans

State Project Output(s) in this section	Overall Project Target	Progress by June 2022	Target for reporting period	Progress by December 2022
1.1 Support the development of bills and legislation for meteorology, hydrology, and disaster management.	3 bills/policies on Met/Hydro and DRM.	<p>By request of the Solomon Islands, due to COVID-19 emergency response during the first half of 2022, the NDMO review has been postponed and implementation in 2022 still to be confirmed.</p> <p>WMO is working with FMS on the production of a Cost-Recovery Plan for Aviation. TOR has been developed and an expert is expected</p>	N/A	<p>The Solomon Islands NDMO review has been postponed to early 2023 due to the national COVID-19 responses in 2022. Discussions with the new NDMO leadership have taken place to set ground for future engagements.</p> <p>The ToR for the FMS Cost-recovery plan for Aviation has</p>

		<p>to be engaged in Q3 2022.</p> <p>Discussions between WMO and Tonga MEIDECC for the drafting of regulations for Tonga's Meteorological Act of 2017 are ongoing and activities are expected to start in Q3-Q4 2022.</p>		<p>been finalized but details are still required from FMS in order to proceed with contracting the consultant. The activity is postponed to early 2023 given the new change in Government.</p> <p>Discussions between WMO and Tonga MEIDECC for the drafting of regulations for Tonga's Meteorological Act of 2017 have been moved to Q1 2023 due to the pending NSP Activity ongoing in Tonga. The TOR is completed and will go through</p>
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				the WMO Tender process in 2023. The consultation budget is also ready.
1.2 Socioeconomic assessment of RSMC Nadi/Fiji Meteorological Service (FMS).	Development of socio-economic assessment	With the COVID-19 response and restrictions being less stringent and the borders being open, there has been some change in the priorities in FMS. A mission has been scheduled in early September 2022 to discuss priorities and support.	N/A	With national elections in Dec 2022, the implementation of this assessment has been delayed. The WB GFDRR team is discussing internally on the viability of completing this work before the closing date.
1.3 National Strategic Plans for Meteorological Services inclusive of costed implementation plans and National Framework for Weather, Water and Climate Services (NS-FWCS) for meteorology, hydrology, disaster risk management, and other related environmental disciplines developed for six Pacific SIDS (Nauru, Samoa, Solomon Islands, Tokelau and Vanuatu).	5 NS-FWCS	1NSP/NSFWWCOS for Tokelau has been finalized, reviewed and approved by Tokelau Meteorological Service and WMO, and is currently under	2 NS-FWCS	NSP/NSFWWCOS for Tokelau finalized and endorsed. NS-FWCS for Tonga has been drafted, reviewed and is currently under final formatting before Cabinet's

		<p>approval for enactment by the national government.</p> <p>NS-FWCS for Tonga has completed consultations and currently in drafting and is to be completed in Q3 2022</p> <p>NS-FWCS for Samoa and the Solomon Islands are expected take place in Q3 and Q4 2022.</p> <p>The concept note for the review of Vanuatu's Meteorology and Geo-Hazard Department and the development of a new strategic plan for VMGD is still pending.</p>	<p>approval and formal distribution.</p> <p>A consultant was hired for the development of the NS-FWCS for the Solomon Islands. Completion of the plan is expected in Q1 2023, after the conclusion of consultations – scheduled tentatively January 2023.</p> <p>The concept note for the review of Vanuatu's Meteorology and Geo-Hazard Department and the development of a new strategic plan for VMGD has been completed and a</p>
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		<p>Discussions on the review and update of Samoa`s ground water strategy have started in Q2 2022.</p>		<p>consultant is expected to be hired and start duties in Q1 2023. Technical evaluations are currently ongoing.</p> <p>Discussions are currently ongoing with Samoa on the development of their NS-FWCS and the update of their ground water strategy. A ToR for the development o the NSP has been circulated. The Strategy for groundwater Resources TOR and the related consultancy work are expected to start is Q1 2023.</p>
<p>1.4 WMO and regional coordination mechanisms for meteorological, hydrological, disaster management, and</p>	<p>2 Pacific Meteorological</p>	<p>WMO and SPREP are currently</p>	<p>N/A</p>	<p>The approach on the review of the</p>

<p>other related environmental disciplines and services improved.</p>	<p>Council (PMC) documents for improved coordination mechanisms developed.</p>	<p>discussing the TOR for a consultant or team of consultants to lead the review of the PMC and PMDP as well as the donor engagement framework. This work is scheduled to start in Q3 2022.</p>	<p>PMC and PMDP is currently postponed to 2023 with SPREP to finalise their approach in moving forward. WMO has started drafting the template to start the engagement with the donors that work in the region, the draft has been shared with SPREP for review and feedback. This will be finalised in Q1 2023 and circulated to the relevant partners to begin the gathering of information and data. The outcome is expected to be presented at PMC in August 2023.</p>
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<p>1.5 Collaboration between RSMC Nadi/FMS and the Pacific Islands and Territories' Meteorological Services it serves formalized.</p>	<p>8 Agreements (such a Service Letter Agreement (SLAs), Memorandum of Understanding (MoUs) or equivalents) for the service provision developed or drafted.</p>	<p>This activity is to be discussed in the PMC meeting, and is not expected to take place in 2022.</p>	<p>N/A</p>	<p>This activity is to be discussed in the 2023 PMC meeting for clear directions in moving forward and was not expected to take place in 2022.</p>
<p>Additional information: briefly indicate, with concrete examples, the contributions to CREWS value propositions (gender-responsive, multiplier, people-centered, promote coherence, solution-oriented, unique), as relevant (150 – 200 words). <u>Please list in bullet points.</u></p> <ul style="list-style-type: none"> • <i>Multiplier</i> demonstrating the value of the services provided by FMS and RSMC Nadi has the potential to increase future investments in the RSMC; the review of PMC policies and documents will support future resource mobilization for PMC and NMHSs and NDMOs in the region. • <i>Gender responsive & people centered:</i> The activities to strengthen capacities as well as the legislation and NSPs which outlines action plans for the NMHSs, aim to strengthen EWS in a way that will reach more people - specifically the ones most at risk, and further contribute to the concept of people-centered EWS. • <i>Unique:</i> The production of a Cost-Recovery Plan for Aviation for FMS aims to increase the institutional and operational efficiency of FMS by revisiting existing frameworks on aviation. 				

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CREWS Output(s) 2: Risk Information to guide early warning systems and climate and weather services developed and accessible

State Project Output(s) in this section	Overall Project Target	Progress by June 2022	Target for the reporting period	Progress by December 2022
2.1 Integrated and inclusive operational EWS plan and system to addressing new and existing multi-hazards developed (includes SWFP, FFGS, CIFI).	Existence of operationalized EWS plan / Existence of integrated EWS platform.	The Solomon Islands IBFWS has finalized its TOR for a consultant and is scheduled to start when the consultant is onboard in Q3 2022. Discussions as underway with the NMSs.	Start of IBFWS activities and selecting the consultant.	A consultant has been contracted to develop the IBFWS plan for the Solomon Islands. A workshop on the implementation of IBFWS in the Solomon Islands, has been scheduled and will take place in Honiara, 23-27 January 2023.
2.2 Implementation of a high-resolution NWP mesoscale model in Fiji completed and operational.	1 established verification and validation programme. 2 ECMWF licenses provided. 15 Number of staff trained.	ECMWF license provided under CREWS Pacific SIDS project until 2022. WMO is engaged in discussions with BMKG to train FMS staff and to run high resolution NWP	ECMWF licenses provided for the period. Mission between BMKG and FMS on the assessment of NWP conditions and for the installation of NWP high resolution.	ECMWF ecChart license provided to FMS under CREWS Pacific SIDS until September 2022. Discussions are underway with FMS to explore if FMS still views it as a useful

		at FMS. Further progress is expected during Q4 2022/ Q1 2023.		operational tool to consider renewal of its license. A mission was organized between BMKG and FMS on the assessment of NWP conditions and for the installation of NWP high resolution at FMS, between 21 Nov- 9 Dec 2022. Further interactions including online support by BMKG, and onsite training activities will continue during 2023.
2.3 Capacities to detect, monitor and forecast severe high impact meteorological, hydrological, and other related environmental hazards' events improved.	25 of services with in-country capacity building sessions. 25 of capacity building sessions	Development of training modules for conducting national training in use of WMO GPC LRFs sub-	N/A	Selected countries to receive the trainings are yet to be confirmed. BoM to confirm

	<p>conducted.</p> <p>25 of forecasts produced with input from training.</p>	<p>season to seasonal climate prediction products from ACCESS-S continued.</p>		<p>in 2023 and start planning the training sessions for the selected countries.</p>
<p>2.4 Communities' response to multi-risk information and warnings improved</p>	N/A	N/A	N/A	<p>The International Technical Advisor designed and facilitated stakeholder workshops for IBFWS – developing impacts tables, advice and action statements and communication and warning products Samoa & Tonga</p>

				<p>Stakeholder workshops for impact tables and advice and action statements completed</p> <p>IBFWS product design and communication workshop completed for Samoa</p> <p>Technical evaluation for a firm to support further development of IBFWS completed (implementation of this is likely to be supported through the PREP projects in the respective countries)</p>
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2.5 CB-EWS implemented	<p>2 communities with CBEWS in place.</p> <p>Risk maps developed / updated.</p> <p>Existence of response plans.</p>	This activity is not expected to start in 2022.	N/A	An LoA with SPREP has been drafted and is expected to enter into force early 2023. The delay in this activity is due to the closing of CBEWS activities under CREWS Pacific SIDS project (2017-2022).
<p>Additional information: briefly indicate, with concrete examples, the contributions to CREWS value propositions (gender-responsive, multiplier, people-centered, promote coherence, solution-oriented, unique), as relevant (150 – 200 words). <u>Please list in bullet points.</u></p> <ul style="list-style-type: none"> <i>Unique</i> The collaboration between BMKG and FMS, with the overall coordination of WMO, showcases a strong partnership within the Asia-Pacific community and South-South cooperation and support. 				

CREWS Output(s) 3: Information and Communication Technology, including Common Alerting Protocol (CAP), strengthened

State Project Output(s) in this section	Overall Project Target	Progress by June 2022	Target for the reporting period	Progress by December 2022
3.1 Support development of Regional ICT Strategy that includes WIS to exchange and delivery of meteorology,	50 % of data sharing between	Discussions have started on to link	N/A	Several online discussion

<p>hydrology, and ocean data and information.</p>	<p>members</p>	<p>to WMO Information System (WIS) 2.0 pilot in the Pacific region.</p> <p>Discussions have started between WMO and FMS on the website upgrade for RSMC-Nadi-FMS. Next steps include developing a ToR for the implementation of the service.</p>		<p>meetings were conducted in 2022 to discuss the preparation for the WIS 2.0 pilot phase and the development of a WIS 2.0 in-a-box pilot project in the Pacific Island Members.</p>
<p>3.2 Communication of early warning Improved.</p>	<p>Number of stakeholder consultations identifying communication channels.</p> <p>Existence of communication strategy.</p> <p>30% in communities reached for EW.</p>	<p>No activity to report during this period.</p>	<p>N/A</p>	<p>No activity as pilot has started</p>



<p>3.3 National and regional platforms for NMHSs to exchange and share meteorological, hydrological, and other related environmental information among stakeholders including those in the socio-economic sectors strengthened.</p>	<p>17 of national and regional platforms taken place.</p>	<p>No activity for this reporting period. At least two NCOFs planned and to be reported in the next reporting period.</p>	<p>2 NCOFs</p>	<p>2 NCOF took place – Solomon Islands and Samoa</p> <p>Initial discussions with Tokelau for the organization of their first NCOF in 2023.</p>
<p>Additional information: briefly indicate, with concrete examples, the contributions to CREWS value propositions (gender-responsive, multiplier, people-centered, promote coherence, solution-oriented, unique), as relevant (150 – 200 words). <u>Please list in bullet points.</u></p> <p><i>Unique</i> – Discussions with Tokelau on the organization of their first ever NCOF are a direct result of the NSP-FWCS concluded under the CREWS Pacific SIDS 2.0 project. This will be delivered in coordination with SPREP.</p>				

CREWS Output(s) 4: Knowledge products and awareness programmes on early warnings developed

State Project Output(s) in this section	Overall Project Target	Progress by June 2022	Target for the reporting period	Progress by December 2022
<p>4.1 Knowledge products and publications developed</p>	<p>4 knowledge products developed</p>	<p>N/A</p>	<p>N/A</p>	<p>A scoping study on gender-responsive and disability inclusive EWEA in the Pacific is finalized and planned to be</p>



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				<p>published on PreventionWeb in Q1 of 2023.</p> <p>Awareness raising posters for introducing impact-based warnings to a public audience and the impact from tropical cyclones developed for Samoa.</p>
<p>Additional information: briefly indicate, with concrete examples, the contributions to CREWS value propositions (gender-responsive, multiplier, people-centered, promote coherence, solution-oriented, unique), as relevant (150 - 200 words). <u>Please list in bullet points.</u></p> <ul style="list-style-type: none"> Samoa Meteorology Division (SMD) provided user needs requirements for two posters: 1) introduce the concept of IBFWS to the people of Samoa, 2) show the magnitude and impacts cause by Tropical Cyclones in Samoa. WB consulted SMD, and applied good practice from other impact-based warning services and policies, to ensure the imagery and language is suitable for a diverse Samoan audience (people-centred, solution-oriented). 				

CREWS Output(s) 5: Gender-sensitive training, capacity building programmes provided

State Project Output(s) in this section	Overall Project Target	Progress by June 2022	Target for the reporting period	Progress by December 2022

<p>5.1 Guidance on mainstreaming gender and disability developed.</p>	<p>Existence of Women In Leadership (WIL) Community of Good Practice (CoP).</p> <p>Percentage (to be defined after UNDRR assessment) of women trained under WIL.</p>	<p>The draft guideline on mainstreaming gender and disability is under development.</p>	<p>N/A</p>	<p>A draft guidance/ checklist on mainstreaming gender and disability into EWEA is developed and under review. Expected to be finalized by Q1 2023.</p>
<p>Additional information: briefly indicate the contributions, with concrete examples, to CREWS value propositions (gender-responsive, multiplier, people-centered, promote coherence, solution-oriented, unique), as relevant (150 - 200 words). <u>Please list bullet points.</u></p> <ul style="list-style-type: none"> - A draft guideline on integrating gender and disability into early warning and early action was developed based on the results of the scoping study on gender-responsive and disability inclusive early warning systems in the Pacific. The guideline is aimed at supporting the technical agencies such as NMHSs and NDMOs to ensure gender and disability are considered across all four elements of the EWS. It is currently under the revision of technical agencies and is expected to be finalized during Q1 of 2023. - A scoping study on gender-responsive and disability inclusive EWEA is finalized. The study identified gaps and needs in mainstreaming gender and disability into current policies and practices, services and tools, and provides recommendations to improve future actions on early warning and early actions in the Pacific region. - A practical guide to conduct assessments on gender-responsive and disability inclusive EWEA along with a set of questionnaires for community consultations and key informant interviews were developed. This helps to replicate similar scoping studies and assessments in other countries or communities. 				



12.2 Regional Output(s) (for Regional Projects)

CREWS Regional Output(s): Institutional and human capacities at Regional WMO and Intergovernmental organizations to provide regional climate and weather services to LDCs and SIDS increased

State Project Output(s) in this section	Overall Project Target	Progress by June 2022	Target for the reporting period	Progress by December 2022
R.1 Implementation of a high-resolution NWP mesoscale model in Fiji.	FMS/RSMC Nadi staff have the necessary skill set to implement high resolution NWP model in Fiji.	Progress hindered due to the ongoing travel restrictions in place due to Covid-19. WMO is working closely with FMS and other partners to conduct the training.	N/A	A mission was organized between BMKG and FMS on NWP LAM installation and training, between 21 November to 9 December 2022.
R.2 Access for FMS and RSMC Nadi to high-quality NWP products and relevant tools.	ECCharts for FMS/RSMC Nadi in place.	ECCharts licenses available until September 2022.		WMO consulting with FMS if they wish to continue licensing ECCharts.
<p>Additional information: briefly indicate, with concrete examples, the contributions to CREWS value propositions (gender-responsive, multiplier, people-centered, promote coherence, solution-oriented, unique), as relevant (150 - 200 words). <u>Please list in bullet points.</u></p> <p>N/A</p>				

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 Approved by Filipe Lucio, Fri Mar 10 13:49:26 UTC 2023

13. Certification on Use of Resources

This needs to be provided at the end of the year as part of the submission of the 2nd semester report. Each Implementing Partner to provide a certification of the use of resources signed by their authorized representative.

14. Visibility products

- a. *Insert or copy any links to press releases, videos or communication items and/or social media links produced during the reporting period only*

15. Supporting documents

- a. *List and annex to the report any documents providing details on project activities conducted during the reporting period such as reports of training sessions, assessment reports, online solutions and tools, manuals, summaries of high-level discussions etc.*

Annex 1: Samoa Awareness Raising Posters for Impact-based Weather Warnings and Tropical Cyclones (English versions attached. Samoan versions being finalised).

16. Project History

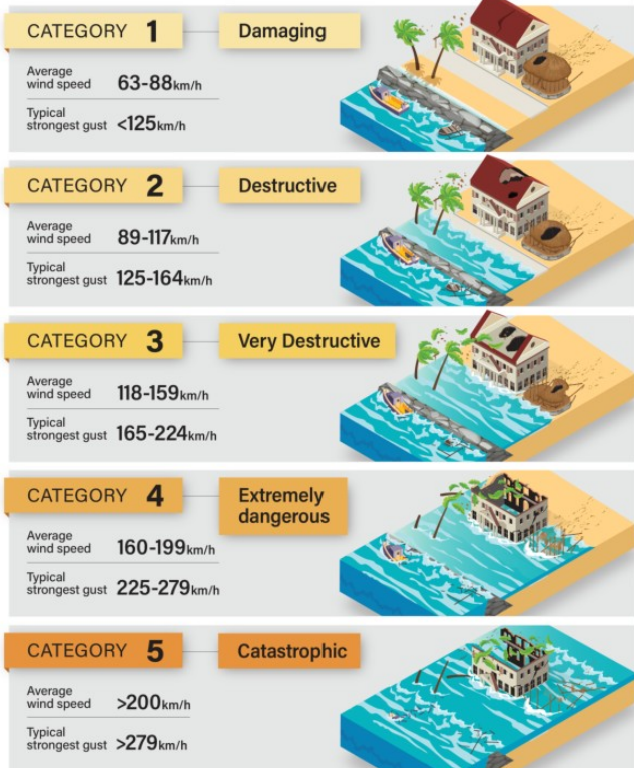
- a. *Highlight key achievements since project started in bullet points, include all visibility and supporting documents other than those from the last 12 months*
- Appointment of Technical IBFWS Specialist to support CREWS delivery in Tonga and Samoa
 - IBFWS stakeholder awareness raising Tonga and Samoa: An Introduction to IBFWS (paper), Developing IBFWS – Key lessons from global IBFWS (workshop), Advice and Action Statements (workshop), Impact Tables (workshop), Product Design and Communication (workshop), IBFWS in Practice (workshop – Samoa only)
 - Appointment of Technical Assistance Team to review and make recommendations on: Hydrometeorological Risk Analysis, Warning Production Software, Warning Design and Communication for Impact-Based Forecast and Warning



Annex 1: Samoa Awareness Rasing Posters for Impact-Based Weather Warnings and Tropical Cyclones



TROPICAL CYCLONES





Impact-based Weather Warning Services



Feedback from our communities is being used to change our weather warnings to impact-based weather warnings

Impact-based weather warnings will tell you what severe weather you can expect AND what impacts the weather might cause

Advice and guidance on what you can do to protect yourself and your community will be included

Impact-based warnings will be easier to understand

Impact-based weather warning services can:

- be used by disaster management organizations to help you prepare for severe weather in your community
- help disaster management organizations prepare to respond to severe weather impacts
- help you make decisions and take action to save lives and reduce the impacts of severe weather

