CREWS PROJECT PROGRESS REPORT (January – June 2021)

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. Regional/National 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	Jan 2021-Dec 2024	
6. Reporting focal point(s)	**WMO**: Lina Sjaavik Lsjaavik@wmo.int **WB GFDRR**: Habiba Gitay hgitay@worldbank.org Simone Esler sesler@worldbank.org **UNDRR**: Andrew Mcelroy mcelroy@un.org	
7. Project overview **Please include synergies, leveraging, key project deliverables and total funding in bullet points. (max 250 words)** CREWS Pacific SIDS 2.0 is the second regional CREWS Project in the Pacific. This project is an extension of the CREWS Pacific SIDS project (2017-2021) and aims to upscale its efforts in the Pacific Region. CREWS Pacific SIDS 2.0 seeks to strengthen		

integrated and inclusive early warning systems that are part of the region's stronger and more comprehensive human security and resilience agenda. 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, Federated States of Micronesia (FSM), Fiji, Kiribati, Nauru, Niue, Republic of Marshall Islands (RMI), Palau, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu and Vanuatu.

The project is jointly implemented by World Meteorological Organization (WMO), the United Nations Office for Disaster Risk Reduction (UNDRR), and the World Bank Global Facility for Disaster Reduction and Recovery (WB GFDRR) and will include the support of additional regional and in-country partners such as the Secretariat of the Pacific Regional Environment Programme (SPREP), the Pacific Community (SPC), and the Australian Bureau of Meteorology (BoM).

The project has five main outcomes:

1. Improved governance: strengthened governance structures and mechanisms for regional centres and NMHSs targeted by the project are in place.
2. Enhanced product development and accessibility: enhanced regional and national facilities and capacities of regional centres and NMHSs targeted by the project to produce impact-based forecasts and risk-informed warnings of extreme and high impact hydro-meteorological events, accessing and using global and regional data, products and services.
3. Enhanced service delivery: Regional centres and NMHSs targeted by the project better deliver impact based and risk informed hydro-meteorological data, products and services to MHEWS stakeholders for their decision support.
4. Enhanced communication and awareness programmes on early warning services (EWS): communication and awareness products on early warning can improve the uptake of early warning information by end users.
5. Improved integration of gender including people living with disabilities across the EWS chain: development and implementation of a people-focused, gender-sensitive National EWS plan and system that addresses emerging and existing multi-hazards and responds to the needs of vulnerable groups including women, children, youth, people with disabilities, and people living in remote-outer islands (last-mile).

The project links closely with other regional initiatives including the Australian Government funded project Climate and Ocean Support Program in the Pacific (COSPPac) implemented through the Australia Bureau of Meteorology (BoM), the GEF

funded “Tuvalu Coastal Adaptation Project” implemented by UNDP and SPC, and the German Development Bank funded (KfW) initiative “Recovery Support for Tropical Cyclone Pam” implemented by SPC. Furthermore, through WMO and SPREP, the project links closely with the Intra-ACP Climate Services and Related Applications Programme (ClimSA).

8. Progress summary

What has been achieved between (reporting period)? – Please list the most significant and tangible developments?

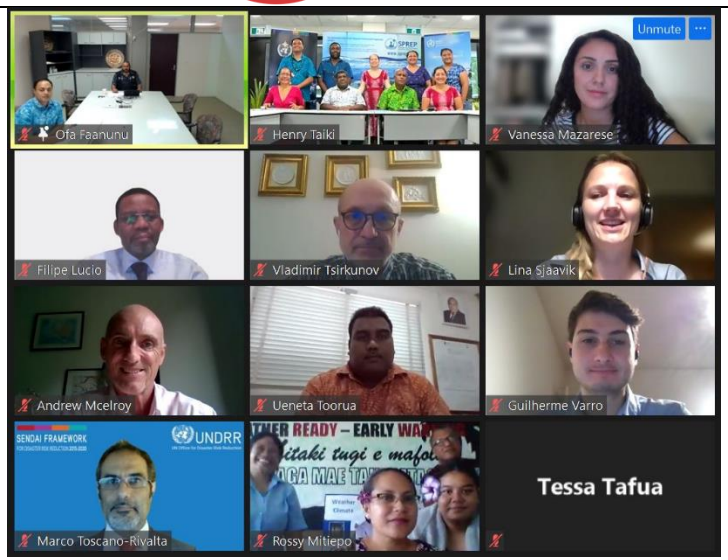
Coordination

Throughout the reporting period, WMO has been engaged in continuous consultations with regional implementing partners, including BoM, SPC and SPREP, for the establishment of the necessary Implementing Arrangements for the CREWS Pacific SIDS 2.0 project. Furthermore, coordination between the three Implementing Agencies – WMO, UNDRR, WB GFDRR – has been constant throughout the implementation period, for both the establishment and definition of activities and organization of the CREWS Pacific SIDS 2.0 Launch event.

Project Launch – July 14, 2021

WMO, alongside the implementing partners, organized the official CREWS Pacific SIDS 2.0 Launch on 14 July 2021, attended by representatives from regional and national partners, directors and representatives of NHMSs, NDMOs and the New Zealand Ministry of Foreign Affairs and Trade (MFAT). During the virtual Launch event, WMO highlighted the achievements from the first phase of the CREWS Pacific SIDS project implemented between 2017 and 2021, and alongside the implementing partners, UNDRR and WB GFDRR, shared the new focus and activities planned for the second phase of CREWS Pacific SIDS.

WMO will organise an inception workshop with its partners and beneficiaries to present the year 1 workplan and multi-workplan in late September 2021. This will allow countries to validate the planned activities and provide any input to the implementation plan.



Enhanced Governance

For National Strategic Plans and Frameworks for Weather, Water and Climate Services, WMO has received requests from Vanuatu Met Service and Tokelau. Their concept notes are under development and the related work is planned to start in Q3 2021.

Following the work done for the policy and drafting instructions for the Solomon Islands Meteorological Service, the Solomon Island Disaster Management Office also requested the organisation to assist in the development of their Bill. The related concept note is currently under development.

The Pacific Resilience Meeting – July 6-8, 2021
The Pacific Resilience Meeting – the biennial meeting of the Pacific Resilience Partnership, a leaders mandated coordination mechanism to support implementation of the Framework for Resilient Development in the Pacific (FRDP) - delivered a powerful Outcomes Statement that will be presented to the annual leaders meeting of the Pacific Islands Forum in August.
Honourable Kausea Natano, Prime Minister of Tuvalu opened the Pacific Resilience Meeting urging all stakeholders to work smarter and more collaboratively emphasising: 'Our journey of resilience starts with us taking action now.'

The Outcomes Statement highlighted the importance of 'increased efforts to better understand climate and disaster risk and their impact; and clearly and inclusively communicate early warnings and early action, at all levels and across all sectors'.
Also of relevance to CREWS Pacific 2.0 was the call to 'build on the examples of local, women-led gender-responsive and disability-inclusive approaches to health emergencies and climate-related disasters'.

IBFWS
A Technical Advisor for Impact Based Forecast and Warning Services (IBFWS) has been recruited by WB GFDRR. Technical meetings were conducted with counterparts in Government of Samoa and Government of Tonga. Roadmaps for implementing IBFWS for Samoa and Tonga highlighting proposed technical activities for the next 18 months were developed. Follow-up meetings have been arranged with Samoa Meteorology Division (SMD) and Tonga Meteorological Service (TMS) to agree on the next steps. Preliminary TOR for a consulting team have been developed to complement support over the next 12-18 months.

A short paper “An introduction to developing impact-based forecast and warning services in the Pacific islands” was finalized in April 2021 to share operational lessons learned and good practices.

Fiji
Draft TOR prepared to support socio-economic assessment on hydromet services of Fiji Meteorological Services, including the RSMC in Nadi.
Planning is underway to scope capacity development activities on tropical cyclone and flood forecasting with FMS. Recruitment of flood expert is in progress. WB GFDRR may consider issuing a Request for Expression of Interest for Tropical Cyclone Expert.

Staff Recruitment
UNDRR has identified a project coordinator and recruitment is being finalised.

9. 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	🟢	🟢	🟢

Narrative	The total expenditure of the project to date is **USD 192,361.71**, of which: WMO: USD 103,277.71 WB GFDRR: USD 77,502 UNDRR: USD 11,582	Following a planning period, under which contractual arrangements with regional partners are being finalized, the WMO activities under CREWS Pacific 2.0 are due to commence in Q3 2021. Some select activities are being advanced and implemented under the ongoing CREWS Pacific SIDS project. Opportunities for meaningful technical dialogue with the government partners have been constrained due to ongoing COVID-19 and travel restrictions. WB GFDRR team is exploring options to enhance on-the-ground implementation support.	The project remains aligned to the objectives.

10. Risk Management Status

Risk Status	What is the current risk status as compared to what was identified in the project proposal? The risk status of the project remains low to medium as identified in the project proposal. The major risk to achieving the intended outcomes and objectives is the ongoing COVID-19 pandemic, which has caused significant implementation constraints due to the inability to travel and difficulties with stakeholder engagement.

	Other potential risk are severe natural hazards such as tropical cyclones, that may hinder communications with countries; beneficiary NMHSs, NDMOs and other in-country agencies are busy and fully occupied with national commitments.
Measures to address	What mitigation measures have been developed to address the risk status? To mitigate the risks identified the project team remains in close and regular dialogue with the beneficiary NMHSs, NDMOs, in-country and regional implementing agencies. All technical activities in the foreseeable future will need to continue being carried out remotely. A few NMHSs received teleconference equipment under the CREWS Pacific SIDS project 2017-2021. More NMHSs, including NDMOs, may need assistance with virtual conference equipment under CREWS Pacific SIDS 2.0 project. A template for a concept note is developed and shared with project beneficiaries to complete and sent return to WMO. This includes information on national project's activity focal point. Where needed, extra support from within the country will be ensured.

11. Contributions to CREWS Output(s)s

11.1 National Output(s)s

CREWS Output(s) 1: National Meteorological and Hydrological Services 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**	**Target for reporting period**	**Progress by December 2020**	**Progress by July 2021**
1.1 Support the development of bills and legislations for meteorology, hydrology, disaster management.	3 of bills/policies on Met/Hydro and DRM.	0	N/A	1 request received, pending concept note to start.

1.2 Socioeconomic assessment of RSMC Nadi/Fiji Meteorological Service (FMS).	Development of socio-economic. assessment	Initial scoping and engagement with FMS.	A preliminary Draft TOR is being prepared.	Draft TOR has been prepared and is being finalized.
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/NSP	0	N/A	Tokelau and Vanuatu preparing concept notes for NS-FWCS. Development to commence in Q3 and Q4 2021.
1.4 WMO and regional coordination mechanisms for meteorological, hydrological, disaster management, and other related environmental disciplines and services improved.	Number of PMC documents for improved coordination mechanisms developed.	N/A	N/A	Discussion between WMO and SPREP on relevant PMC decisions and budget to address these is ongoing
1.5 Collaboration between RSMC Nadi/FMS and the Pacific Islands and	Number of Agreements (SLAs, MoUs or	N/A	N/A	N/A

Territories' Met Services it serves formalized.	equivalent) for the service provision developed or drafted.			
Narrative: briefly indicate the major issues or challenges faced and mitigation steps taken to addressing them. (150 to 200 words) 1.5 Fiji Meteorological Services reiterated the need for the collaboration agreements during the Pacific Meteorological Council Panel on Aviation Weather Services meeting in July 2021. This should follow the launch of the FMS Strategic plan soon to be finalised under the CREWS Pacific SIDS 1.0 project				

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

State Project Output(s) in this section	**Overall Project Target**	**Target for reporting period**	**Progress by December 2020**	**Progress by July 2021**
2.1 Integrated and inclusive operational Early Warning System (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.	N/A	N/A	N/A
2.2 Implementation of a high-resolution NWP mesoscale model in Fiji completed and operational.	Existence of verification and validation programme. Number of	N/A	N/A	ECMWF license provided under CREWS Pacific 1.0 until 2022

	ECMWF licenses provided. Number of staff trained.			
2.3 Capacities to detect, monitor and forecast severe high impact meteorological, hydrological, and other related environmental hazards' events improved.	Number of services with in-country capacity building sessions. Number of capacity building sessions conducted. Number of forecasts produced with input from training.	N/A	N/A	N/A
2.4 Communities' response to multi-risk information and warnings improved				IBFWS Technical Advisor recruited. Short paper on operational lessons learned prepared. Technical meetings conducted by WB GFDRR with Tonga and Samoa counterparts. Stage 1 (scoping) completed. Stage 2 (implementation of technical studies) is underway. A Request for Expressions of Interest (REOI) for consulting team is being prepared by WB GFDRR.

2.5 CB-EWS implemented	Number of communities with CBEWS in place. Number of risk maps developed / updated. Existence of response plans.	N/A	N/A	Discussion with SPREP on CBEWS sites and budget. WMO and SPREP have received a request from Tonga- pilot Facebook based community Early Warning Dissemination System in 39 village communities in Vava'u. Concept pending.
Narrative: briefly indicate the major issues or challenges faced and mitigation steps taken to addressing them. (150 to 200 words) 2.4 One of the key issues is COVID-19 which has led to closure of international borders therefore restricting field missions. A Climate and Disaster Resilience Specialist has been recruited and based in Fiji to support technical implementation and overall coordination. Virtual meetings are mitigating these challenges.				

CREWS Output(s) 3: Information and Communication Technology, including common alerting protocol, strengthened

State Project Output(s) in this section	**Overall Project Target**	**Target for reporting period**	**Progress by December 2020**	**Progress by July 2021**
3.1 Support development of Regional ICT Strategy that includes WIS to exchange and delivery of meteorology, hydrology, and ocean data and information.	Developed strategy endorsed and operational. Number of technologies integrated and	N/A	N/A	N/A

	used by agencies. Percentage increase in data sharing between project's beneficiaries' countries and in-country agencies.			
3.2 Communication of early warning Improved.	Number of stakeholder consultations identifying communication channels. Existence of communication strategy. Percentage increase in communities reached for EW.	N/A	N/A	N/A
3.3 National and regional platforms for NMHSs to exchange and share meteorological, hydrological, and other related environmental	Number of national and regional platforms taken place.	N/A	N/A	N/A

information among stakeholders including those in the socio-economic sectors strengthened.				
Narrative: briefly indicate the major issues or challenges faced and mitigation steps taken to addressing them. (150 to 200 words)				

CREWS Output(s) 4: Preparedness and response plans with operational procedures that outline early warning dissemination processes developed and accessible.				
State Project Output(s) in this section	**Overall Project Target**	**Target for reporting period**	**Progress by December 2021**	**Progress by July 2021**
4.1 Knowledge products and publications developed	Number of knowledge products developed	N/A	N/A	N/A
Narrative: briefly indicate the major issues or challenges faced and mitigation steps taken to addressing them. The project was officially launched in 2021 and rollling out its activities therefore, it is too soon to report on knowledge products at this reporting period				

CREWS Output(s) 5: Improved integration of gender including people living with disabilities across the EWS chain.

State Project Output(s) in this section	**Overall Project Target**	**Target for reporting period**	**Progress by December 2020**	**Progress by July 2021**
5.1 Guidance on mainstreaming gender and disability developed	Existence of Women In Leadership (WIL) CoP Number of women trained under WIL.	N/A	N/A	N/A

Narrative: briefly indicate the major issues or challenges faced and mitigation steps taken to addressing them. (150 to 200 words)

5.1 UNDRR has begun work in support of the National Disaster Management Office (NDMO) of Fiji to progress the development of a Disaster Risk Management Volunteer Scheme.

Consultations have started to map how best to ensure a strong gender/inclusivity lens in the overall scheme, including the development of an accompanying DRM Volunteers Scheme manual. The scheme will support the new legislative arrangements in Fiji with an updated Disaster Management Act in process (the existing one was passed in 1998). The focus is to ensure that the volunteers' preparedness and response work (including early warning related activities) is gender responsive and inclusive of persons with disabilities as well as other vulnerable groups.

An awareness raising workshop is planned for September 2021 (in Turaga- ni-Koro, District). This will help identify the capacity and resourcing needs for the Scheme to be rolled out as a pilot as well as nationally.
WMO and UNDRR have also started discussions on the project gender indicators to be developed but awaiting the UNDRR project staff to be onboard before this can take place.

11.2 Regional Output(s)s

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**	**Target for reporting period**	**Progress by Dec 2020**	**Progress by July 2021**
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.	Training for HPC conducted	N/A	Activity delayed
R.2 Access for FMS and RSMC Nadi to high-quality NWP products and relevant tools.	ECCharts for FMS/RSMC Nadi in place.	ECCharts available until September 2022.	ECCharts available until September 2022.	ECCharts available until September 2022.

Narrative: briefly indicate the major issues or challenges faced and mitigation steps taken to addressing them. (150 to 200 words)

R.1 Due to the problems related to the delivery of HPC Servers under CREWS Pacific 1.0 the related training is delayed. The procured servers are currently in transit and are due to arrive in Fiji in August 2021.

R.2 The license for the ECCharts for FMS/RSMC Nadi was obtained in September 2019, and will give access for FMS/RSMC Nadi to European Centre for Medium-Range Weather Forecasts (ECMWF) products through its ecChart tool until September 2022. The licences will be further extended to cover the life time of the project.

12. Contributions to Value Propositions

Gender Responsive	While building up on the achievements and milestones reached during the first phase of CREWS Pacific SIDS, between 2017-2021, integration of gender in all project outcomes and activities will be strengthened. A second Women in Leadership workshop is planned, following the success of the 2019 event and additionally, a Women in Leadership Community of Practice will be established. For the development of the TORs for the NHMSs Strategic Plan and Framework for Weather, Water and Climate, the team included gender considerations in the design of the plans as part of the assessment and information gathering. The end-product will have identified the users of the products produced by the NHMSs, and the different ways they access information making sure that it reaches the full population. The initial scoping study for IBFWS in Tonga and Samoa will include consideration of diverse users including people of different genders, ages, and abilities. Likewise, the initial scoping for strengthening the RSMC Nadi and the NHMS operated by Fiji Meteorology Services (FMS) will consider gender analysis. The WMO and UNDRR will also be developing project gender indicators to be incorporated in the project logframe.
Multiplier	Project components, such as CBEWS are building on existing and/or past successful initiatives and promoting these in other countries. The components are building on activities first piloted under FINPAC and COSPPAC projects and coordination with other initiatives such as ClimSA is ensured. Through the CREWS Pacific SIDS project, the lessons learned have been taken into consideration, as the component is expanding to countries that were not involved in previous initiatives. The SPREP, Australia BOM, WMO and NMHSs have also completed the Weather Ready Pacific Decadal Investment Plan which has been endorsed through the Pacific Meteorological Council and is now to be presented at the Pacific Leaders Forum in Q3 2021.

People-centered	The CBEWS component is strengthened and made more accessible for the inclusion of traditional knowledge, and to take into consideration the different needs of women, people with disabilities, elderly and minorities in early warning systems. Focus is to reach communities and those who are not well connected with the NMHSs, and work will continue to include the National Red Cross Societies. The choice of countries and communities were based on reaching the last mile. Past achievements in the first phase of the project included the implementation of community-specific impact-based coastal inundation forecasting systems in Kiribati and Tuvalu, including vulnerability assessments and risk awareness programmes.
Promote Coherence	The project is promoting coherence through cooperation with other ongoing projects in the region (including KfW Development Bank project, UNDP Tuvalu Coastal Adaptation Project (TCAP), UNDP Disaster Resilience for Pacific Small Island Developing States (RESPAC), UNDP Climate Early Warning Systems (CREWS)Project, Intra-ACP Climate Services and Related Applications Programme (ClimSa) and Climate and Oceans Support Programme in the Pacific COSPPac), and through continuous coordination amongst implementing partners (WMO, WB GFDRR and UNDRR). Furthemore, it builds up on the achievements and progress achieved during the first phase of the CREWS Pacific project, implemented between 2017-2021. Examples of such cooperations are the CREWS funded ADPC study and the Weather Ready Pacific – Decadal Program for Investment, and the discussions with NOAA on the activities planned for the development of the North Pacific (Republic of the Marshall Islands, Palau and Federated States of Micronesia) Strategic Plans for the Met Services.
Solution-oriented	Solution-oriented approaches remain an essential part of CREWS Pacific SIDS 2.0. Building up on past activities and outcomes from the first phase of the project, including those under SPREP's CBEWS components, the project continues to focus on the delivery of tailored services to meet specific needs of different communities and individuals, including women, youth, people living with disabilities, and those living in remote locations, and of relevant economic sectors. A successful example from the first phase of the project was the partnership between SPREP CBEWS and youth organization Niue Boys and Girls Brigade, focused on the promotion of climate science and information as well as the development of disaster preparedness plans and activities. Such an initiative proved to be an effective way in bringing the youth onboard in the delivery of CBEWS activities. Local organizations (Community and Faith Based) have not yet been involved in the initial scoping study for IBFWS. A list of stakeholders to engage with during implementation will be recommended.
Unique	CREWS Pacific 2.0 will continue to focus on building value and attaining relevant changes in the way early warning systems are integrated and adopted in public policies across the Pacific region. Noteworthy

	achievements, such as the Tonga Water Resources Act of 2020 – known for its integration of community consultations into the drafting of legislation on the country's water resources – represent the uniqueness and powerful attribute of the project in settings relevant to EWS action in Pacific SIDS.

13.Visibility products

a. Insert or copy any links to press releases, videos or communication items and/or social media links

CREWS Pacific SIDS 2.0 Launch Event page
CREWS Pacific 2.0 Launch Event press release

14.Supporting documents

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

"An introduction to developing impact-based forecast and warning services in the Pacific islands" by WB GFDRR