



## CREWS PROJECT PROGRESS REPORT

(July – December 2020)

Ref.: 05013/2021\_1.0 MS/TSC

<b>1. Project title</b>	Strengthening Hydrometeorological and Early Warning Services	<b>2. Project reference</b> CREWS/RProj/04/Pacific
<b>3. Implementing Partners involved in the project</b>	World Meteorological Organization	<b>4. Regional/National Partners involved in the project</b> Secretariat of the Pacific Regional Environment Programme (SPREP) The Pacific Community (SPC) MetService New Zealand Hydrologic Research Center (HRC) Asia Disaster Preparedness Center (ADPC)
<b>5. Project Duration/Timeframe</b>	Jan 2017-Dec 2021	
<b>6. Reporting focal point(s)</b>	Josephine Wilson	



<b>7. Project overview</b>	<p><b>Please include synergies, leveraging, key project deliverables and total funding in bullet points. (max 250 words)</b></p> <p>The CREWS Pacific SIDS Project is co-funded by the CREWS Initiative (USD 2,500,000) and Environment and Climate Change Canada (ECCC) through the project “Building Resilience to High-Impact Hydro-Meteorological Events through Strengthening MHEWS in Small Island Developing States (SIDS) and South East Asia” (USD 2,500,000).</p> <p>The project focuses on strengthening the Regional Specialised Meteorological Centre in Nadi (RSMC-Nadi), Fiji and the NMHSs that it serves in the following Pacific SIDS; Cook Islands, Fiji, Kiribati, Nauru, Niue, Tokelau and Tuvalu. Moreover, the project supports the Federated States of Micronesia (FSM), the Republic of Marshall Islands (RMI), Palau, Samoa, Solomon Islands, Tonga, and Vanuatu. The prioritization is based on regional outreach, and other projects under implementation in the region. The project has three main components based on the three outcomes:</p> <ol style="list-style-type: none"><li>1. <u>Improved governance</u>: strengthened governance structures and mechanisms for regional centres and NMHSs targeted by the project are in place.</li><li>2. <u>Enhanced product development and accessibility</u>: 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.</li><li>3. <u>Enhanced service delivery</u>: 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.</li></ol> <p>SPC, SPREP and the New Zealand MetService are implementing subcomponents of the project. 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 Government of Russia funded project “Disaster Resilience for Pacific Small Island Developing States” implemented by UNDP, the GEF funded “Tuvalu Coastal Adaptation Project”</p>
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	<p>implemented by UNDP and SPC, and the German Development Bank funded (KfW) initiative “Recovery Support for Tropical Cyclone Pam” implemented by SPC.</p>
<p><b>8. Progress summary</b></p>	<p><b>What has been achieved between June and December 2020? – Please list the most significant and tangible developments?</b></p> <p>The reporting period has seen significant progress highlighting the following:</p> <p><u>Improved governance:</u></p> <ul style="list-style-type: none"> <li>– Following requests from the Government of Fiji to amend the National Strategic Plan (NSP) for Fiji Meteorological Service (FMS) to align with national priorities, a consultant was hired to complete the task in 2020. The review is done remotely due to the travel restrictions associated with COVID-19. The Fiji NSP is expected to be finalized in Q1 2021.</li> <li>– The Strategic Plan for Tonga’s Hydrology and Water Resources Division of the Natural Resources Department / Ministry of Land and Natural Resources (MLNR) was finalized in August 2020. In September, the Tonga Water Resources Bill that has existed only in draft form since 1983 was passed in Parliament constituting a significant achievement for Tonga and the CREWS Pacific SIDS Project. This is now enacted by the MLNR.</li> <li>– The review and update of the NS-FWCS and related Action Plan for Kiribati is in its final phases and is expected to be completed in January 2021. An extensive consultation process was carried out by the Kiribati Met Director and Staff in its outer islands to gather data and inputs from the communities that will be considered in the drafting of the plan.</li> </ul>



- A consultant was hired in November 2020 for the development of NS-FWCS and related Action Plan for Palau, Federated States of Micronesia, and the Republic of Marshall Islands. There is an ongoing discussion on partnership with NOAA to assist WMO consultants by providing advice and review of plans due to the unique arrangement between FSM, RMI and Palau and the US through NOAA and the Compact of Free Association.
- The meteorological bill for Tuvalu was reviewed and was scheduled to be presented to the Tuvalu National Parliament. The first reading of this Bill in Parliament was done in December 2020. This is ongoing.
- Consultants have been hired to draft the Solomon Islands and Kiribati Meteorology bills for completion in Q1 2021. The Solomon Islands drafting policies and processes require that the recruited consultant prepare the drafting instructions following consultations, information gathering and reviews. The completed drafting instructions is then handed over to the Solomon Islands Attorney General Office for drafting.
- The Asian Disaster Preparedness Center is currently in the final stages of the sub-project “Assessing the Capacities, Gaps and Needs of National Meteorological and Hydrological Services and their National (Multi-Hazard) Early Warning Systems (MHEWS) including Regional and Global Support Mechanisms in Pacific Small Island Developing States (SIDS)”. The study will document the respective capacities, gaps, and needs at regional, national and sub-national (local/community) levels, including existing assessments and recently completed, on-going, and planned capacity and technical cooperation interventions. All consultations were completed virtually with all relevant partners in the region and National Met Services focal points. The consultations were conducted together with the regional assessment BoM is completing as a stocktake of the met services before developing an investment plan for the PICs meteorological and hydrological services under the Weather Ready Pacific Initiative. The ADPC study report is expected to be finalized in March 2021.

Enhanced product development and accessibility:

- The implementation of a high-resolution NWP mesoscale model in Fiji is currently ongoing. An agreement entered in effect on 1 April 2020 for delivery of HPC Servers to Fiji Meteorological Service within six months. Nevertheless, the supplier failed to deliver the equipment even by December 2020 due to COVID-19 and the supplier’s failure to secure support of its local warranty and maintenance partner in Fiji. Therefore, WMO is cancelling the contract and is currently in the process to enter into agreement with the second vendor. The second vendor is fortunately a local supplier based in Fiji and the logistical challenges encountered during the original delivery process can be omitted. Delivery of equipment will be expected within three to six months after signing the contract. Implementation of high-resolution NWP will be initiated in collaboration with global/regional NWP centres soon after the installation of HPC servers at FMS/RSMC Nadi.
- Effective of 1 September 2019, an ecChart from the European Center for Medium-Range Weather Forecasts (ECMWF) tool license is also implemented for FMS/RSMC Nadi for three years (2019-2022). The license agreement is for the supply of ECMWF products through its ecChart tool.
- Considering the current travel restrictions, HRC successfully completed the remote installation of FijiFFGS on the servers at FMS in Nadi. FijiFFGS is now running at FMS, instead of HRC servers in the US. After the implementation of FijiFFGS, the National Disaster Management Office (NDMO) of Fiji has started to issue public advisories on heavy rainfall and flash flood alerts and warnings in three languages – English, Hindi and iTaukei. During the recent tropical cyclone activity (TC Yasa) FMS used FijiFFGS products operationally to issue several flash floods warnings in advance and warn the people.
- A letter of agreement (LoA) was signed between WMO and New Zealand Met Service in March 2020 for the implementation of in-country training for 10 Pacific SIDS in support of Severe Weather Forecasting programme in South Pacific. The training events were planned to take place between March and October 2020. However, due to COVID-19 and related travel restrictions, the

organization of face-to-face training was not feasible and consequently, the LoA was amended to include the design and development of online training modules, to support the remote delivery of the training and enhance the SWFP-South Pacific web portal. The agreement has further been extended to 31 March 2021.

The online training will aim to develop capacity of the NMHSs of 10 Pacific SIDS on NWP interpretation, the use of RSMC Wellington guidance product and impact-based forecast and warning services (IBFWS). The enhancement of the SWFP-South Pacific web portal will facilitate display of new observations as well as online reporting by the Pacific SIDS.

- The Impact-based coastal inundation forecasting in Kiribati and Tuvalu progressed according to plans until the outbreak of COVID-19: The instrumentation related to baseline data collection in Kiribati and Tuvalu was installed and deployed in 2019.
  - o In Tuvalu hazard assessments of all sites have been completed and the data has been retrieved and analysed. The data will validate the inundation forecast models for Nanumea, Niulakita, Nui and Niutao. An analysis of the inundation modelling results show, in places, a significant discrepancy with the historical inundation information collected by TV government after TC PAM (2015). The team has been investigating this issue looking at the potential geomorphological changes, model limitation (currently running XBeach in Non-Hydrostratic mode) and a potential issue with the historical inundation data.
  - o In Kiribati, the inundation forecast system was finalized for Tarawa. SPC is awaiting to receive the forecast computers to test its operationalisation. SPC will investigate engaging Kiribati government to collect topography data in the two targeted inundation forecast sites. The data will be used to improve inundation forecast to provide 2D inundation maps instead of TWL proxies. New inundation hazard information is being produced for Tarawa based on 10,000 years of synthetic inundation events using the predictive inundation tools developed under the project.



- o Due to current travel restrictions, SPC was not able to deploy the four real-time ocean wave buoys as initially planned. SPC is currently discussing with Tuvalu and Kiribati stakeholders' ways they could deploy one of the wave buoys in the lagoons of Tarawa and Funafuti. The reef slope deployments are more complex and should be done under the supervision of SPC technicians once the travel restrictions are lifted.
- o A practical guideline on wave buoy deployment was developed and shared with KMS, which includes SPC's lessons learnt over the last 4 years. The project team is working with KMS and Kiribati Fisheries towards the deployment of the wave buoy in Tarawa before the end of the project.
- o Training activities are due to take place after the deployment of the system.
- o Community vulnerability and asset data information can be collected when travel restrictions are lifted between Tuvalu, Kiribati and Fiji.

#### Enhanced service delivery

- The Seventh Pacific Islands Climate Outlook Form (PICO-7) took place virtually on 21 April 2020. The sector theme of PICO-7 was Fisheries and Oceans. Sector experts joined the PICO-7 on the second day to share case studies on linking climate services to fisheries and oceans operations and to discuss opportunities and gaps. The first day of PICO-7 was concentrated on NMHS and seasonal prediction delivery partners' discussion on review of the May-October 2020 climate and the climate and tropical cyclone season outlook for the coming season. Due to COVID-19, PICO-7 was held virtually and drew on lessons from the Apr-PICO-7 which was also held virtually. The added value of the virtual PICO-7 was the increase in number of participants. PICO-7 allowed for the participation of 250 individuals, while PICO-6 had approximately 100.
- Three NCOFs (Tuvalu, Solomon Islands, FSM and Tonga) took place in September and October









- The National Workshop on IBFWS for the Solomon Islands was scheduled from 15 to 19 June 2020. The workshop was reformatted to a virtual format and took place 26-30 October.
- Due to COVID-19 and the related National State of Emergency in the Federated States of Micronesia, SPREP was unable to conduct the activities as planned for Community Based Early Warning Systems (CBEWS). These activities were therefore reprogrammed to take place in Samoa. Through this change the following was achieved:
  - o Tailoring the agro-bulletin for Koko farmers and engaging youth farmers, 4 weeks workshop in both Upolu and Savaii was completed. This is an opportunity to trial and get feedback from youth
  - o CREWS 2-day planning workshop with Samoa Met, NDMO and the CDCRM stakeholders completed
  - o CREWS Samoa project planning meeting to develop workplan and budget ([Story](#))
  - o Samoa Met-Media awareness workshop
  - o Strengthen partnership between Samoa Met and the Media to better communicate Met products and services for informed decision making.
  - o Build capacity of Media staff to understand MET terminologies used in the Early Warning System as well as the products and services provided by Samoa MET.
  - o Assess flow of Samoa MET Information and products to the Media and identifying gaps that will ensure efficient, effective and accurate media reporting
- The CBEWS Niue activities with the boys and girls brigade is ongoing with billboards designed and installed by the brigade last year (further details can be found in the annexed reports). The activities in Palau and the Republic of the Marshall Islands are also ongoing with a few pending activities delayed due to national government restrictions. Please refer to annex for progress report in detail and photos from these selected countries.





## 9. Project Performance

Interpretation of color coding		
	<b>High</b>	Good progress; on track in most or all aspects of delivery
	<b>Medium</b>	Moderate progress or on track in some aspects of delivery
	<b>Low</b>	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
<b>Coding</b>			
<b>Narrative</b>	<p>The total expenditure of the project to date is USD 2,213,862 as compared to the originally planned USD 2,500,000. Following the no-cost extension granted by the CREWS Initiative in November 2020, the project is on track to be completed by 31 December 2021.</p>	<p>Despite COVID, the CREWS Pacific SIDS project has been able to conduct and complete several activities including consultancies to develop National Strategic Plans and Framework for Weather, Water and Climate Services, Meteorology Bills, National Climate Outlook Fora and a National Workshop for Impact-Based Forecasting and Warning Services in the Solomon Islands.</p> <p>Nevertheless, certain activities have been significantly delayed by COVID – Coastal Inundation Forecasting in Tuvalu and Kiribati and Community-Based Early Warning Systems in Niue, Palau, Samoa and the Republic of the Marshall Islands. A third activity that has been delayed during this reporting</p>	<p>The project remains aligned to the objectives.</p>



		period is the delivery of HPC Servers to Fiji Meteorological Service, where the vendor has not been able to deliver per the Letter of Agreement signed in May 2020.	
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### 10. Risk Management Status

<b>Risk Status</b>	<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>
<b>Measures to address</b>	<p>What mitigation measures have been developed to address the risk status?</p> <p>To mitigate the risks identified the project team remains in close dialogue with the beneficiary NMHS and regional implementing agencies.</p> <p>For the financial risk identified at RSMC Nadi, WMO has managed the project funds directly.</p>

### 11. Contributions to CREWS Output(s)

#### 11.1 National Output(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 July 2020	Progress by December 2020



Ref.: 05013/2021-1.0 MS/TSC

1.1 Regional assessment of public and private capacities, gaps and needs with respect to MHEWS governance, product generation and service delivery.	1 Regional Assessment	1 Regional Assessment	1 Regional Assessment (ongoing)	1 Regional Assessment (ongoing)
1.2 In-country assessments of NMHS capacity (Reported under 1.4 under strategic planning).				
1.3 Regional workshops to increase awareness of national MHEWSs and regional/global support mechanisms, and the understanding by MHEWS stakeholders of their respective roles and responsibilities (Link to 1.1).	1 Regional Workshop	1 Regional Workshop	0 Regional Workshop	0 Regional Workshop
1.4 Development of long-term strategic plans for targeted NMHSs (Link to 1.2).	8 Strategic Plans	4 Strategic Plans	2 Strategic Plans	5 Strategic Plans (ongoing)
1.5 Development of Meteorological Bills for targeted NMHSs.	1 Meteorological Bill	0 Meteorological Bills	1 Meteorological Bill	2 Meteorological Bills/Policy (ongoing)
<p><b>Narrative: briefly indicate the major issues or challenges faced and mitigation steps taken to addressing them. (150 to 200 words)</b></p> <p>1.1 The regional assessment is currently ongoing, experiencing minor delays due to its online format. The assessment will be completed by 28 February 2021</p> <p>1.2 The assessments take place as part of the development of the NS-FWCS. During this reporting period, the assessment of Kiribati Meteorological Service has been completed.</p> <p>1.3 Due to the Corona-pandemic the regional workshop had to be cancelled. Instead, ADPC has conducted national virtual workshops.</p> <p>1.4 The Corona-restrictions have also changed the format on the consultancies to develop the NS-FWCS. The plans for Fiji, Kiribati, Palau, the Republic of the Marshall Islands and Federated States of Micronesia are all being developed remotely with virtual consultations.</p> <p>1.5 While the project originally had the goal of producing one Meteorological Bill, the project has been requested to support an additional two legal frameworks for Solomon Islands (policy) and Kiribati (Bill) Meteorological Services.</p>				



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**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 July 2020	Progress by December 2020
2.1 Implementation of Fiji Flash Flood Guidance System (FFGS).	Operational Fiji FFGS	Operational Fiji FFGS	RADAR data ingestion into the FijiFFGS at HRC is ongoing but delayed by travel restrictions.	Operational Fiji FFGS
2.2 Impact-based coastal inundation forecasting in Tuvalu and Kiribati.	Coastal Inundation Forecasting Operational for 3 sites	Coastal Inundation Forecasting Operational for 3 sites	Data collection and hazard assessment of sites in Kiribati and Tuvalu completed (except Funafuti)	Data collection for all sites completed. Wave buoys ready for deployment.
2.3 Regional Climate Outlook Fora	Support for 3 PICOFs	1	3	4
2.4 National Climate Outlook Fora	Support for 5 NCOFs	3 NCOFS	2 NCOFS	5 NCOFS
2.5 National drought consultations.	2 National Drought consultations	N/A	2	2
2.6. In-country training workshops on forecasting and warning services for SWFDP	10 in-country training	5 in-country trainings	0	0
<b>Narrative: briefly indicate the major issues or challenges faced and mitigation steps taken to addressing them. (150 to 200 words)</b>				



2.1 While Fiji FFGS is currently operational, COVID-19 related travel restrictions have delayed the completion of the following training events: (i) IT training; (ii) FFGS Radar Workshop and (iii) Fiji FFGS Step 4 training. While these training events were originally planned as in-person trainings, they will take place remotely in Q1 and Q2 2021.

2.2 The Impact-based coastal inundation forecasting in Tuvalu and Kiribati are facing significant delays as a result of COVID-19. As the activities programmed for 2020 required in-country presence, such as the deployment of four real time ocean wave buoys. These activities are delayed and could not be completed as planned. SPC is currently discussing with Tuvalu and Kiribati stakeholders ways they could deploy one of the wave buoys in the lagoons of Tarawa and Funafuti. The reef slope deployments are more complex and should be done under the supervision of SPC technicians once the travel restrictions are lifted. SPC is looking at designing online training modules on wave buoy deployment to support this important project activity.

2.3 PICOF-7 took place as planned in October 2020. Due to travel restrictions, it was held online. Please refer to the PICOF report for detailed outcomes of the forum. The participation online almost double in number compared to previous years and it was reported that many joined from the media as well as the fisheries departments.

2.4 Three NCOFs took place during this time period in Tuvalu, Solomon Islands and Tonga. Following the demonstration of the value of NCOFs in Tonga, future bi-annual NCOFs are planned to be funded nationally.

2.5 Activity completed in 2017.

2.6 The agreement for in-country trainings were signed with MetService New Zealand in March 2020. Nevertheless, as the Covid-19 pandemic hit, it became impossible to carry out the trainings as planned. Therefore, the agreement with MetService New Zealand was amended to prepare an online training module that will aim to develop capacity of the NMHSs of 10 Pacific SIDS on NWP interpretation, use of RSMC Wellington guidance product and impact-based forecast and warning services (IBFWS).

**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 July 2020	Progress by December 2020
3.1 Upgraded webpage of 4 NMHSs	4 webpages	3 webpages	1 completed and launched	3 completed not yet launched
3.2 Regional training on IT.	2 regional trainings	1	1	1



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3.3 Procurement and installation of HPC for implementation of NWP LAM in FMS/RSMC Nadi	Installation of HPC servers	HPC servers installed and in use	Activity delayed	Activity Delayed
3.4 Feasibility study conducted for FM Radio in Tokelau.	1 Feasibility Study	1	0	At Procurement evaluation process
3.5 CAP Jumpstart Workshops	CAP Jumpstart Workshops in 7 countries	N/A	7	7
3.6 CAP online training module developed	1 Training Module	N/A	1	1
3.7 In-country and regional workshops on dissemination pathways and enhancement of communication.	Needs-based		1 National (Fiji 2017) and 1 Regional (PMC 2019)	2
<p><b>Narrative: briefly indicate the major issues or challenges faced and mitigation steps taken to addressing them. (150 to 200 words)</b></p> <p>3.1 SPREP has completed the development and launch for the Cook Islands' Meteorological Service website in 2018. New websites for Nauru, Kiribati, RMI and Palau are at the design and building phase. All four will be completed in Q2 2021 and launched virtually.</p> <p>3.2 The IT Capacity Development workshop planned for July 2020 has been postponed due to COVID-19. SPREP have purchased video conferencing equipment for all the Met services before the IT training can be delivered. These have already been procured the and shipment will be completed in Q1 2021. Further to supporting the IT Training, the equipment will support the NHMSs doing business online.</p> <p>3.3 As in the narrative description, there has been a delay in the delivery of the HPC servers. WMO is undergoing the process to end the contract with Danoffice and sign a new contract with a local vendor. Delivery of the HPC Servers is therefore expected in Q2 2021.</p> <p>3.4 Following the challenges with the previous consultants, new consultants to complete the feasibility study have been identified.</p> <p>3.5 Completed in 2017</p> <p>3.6 Completed in 2018</p> <p>3.7 Workshop took place in 2017 (Fiji) and 2019 (Regional workshop in Samoa)</p>				



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**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 July 2020	Progress by December 2020
4.1 Regional workshops to initiate impact-based forecasting with relevant stakeholders and implement the WMO Strategy for Service Delivery.	1 Regional Workshop	N/A	1	1
4.2 National workshops on impact-based forecasting.	4	1	1	1
4.3 Community-based early warning services (CBEWS) in Niue, Palau, Samoa and RMI.	4 CBEWS in place	4 CBEWS in place	Replanning rolled out	4 Ongoing

**Narrative: briefly indicate the major issues or challenges faced and mitigation steps taken to addressing them.**

4.1 Regional Workshop took place in 2019

4.2 The target for national workshops has been revised and only one national workshop will take place. The workshop took place in Solomon Islands in October 2020. Due to travel restrictions, the entire workshop was arranged with remote connections for international experts.

4.3 SPREP faced a challenge with competing priorities in RMI where the director position changed three times due to factors outside of their control such as Measles outbreak and COVID. SPREP has therefore reached out to the IFRC, MET Service and SPREP Officer in country to support the CREWS activities through fortnightly calls to update and is suggesting a national coordinator to be put in place who is also familiar with CBEWS.

Due to the national State of Emergency in Federated States of Micronesia, it has not been feasible to roll out CBEWS in the country, and WMO therefore approved the change of community from Federated States of Micronesia to Samoa. A Samoa national coordinator is being recruited to coordinate the activities planned with partners such as NDMO, Fire Services Departments, Red Cross and the Met Service. The Activities in Niue and Palau is progressing well and reports are attached in the annex with photos for your reference.



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### CREWS Output(s) 5: Knowledge products and awareness programmes on early warnings developed

State Project Output(s) in this section	Overall Project Target	Target for reporting period	Progress by July 2020	Progress by December 2020
5.1 Information campaign on Tropical Cyclone Forecasting	1 campaign	1 campaign	0 campaign	1 campaign

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

The information campaign was aimed at the Asia-Pacific Ministerial Conference on Disaster Risk Reduction (APMCDRR) scheduled for 23-26 June 2020. However, due to COVID-19 the Conference was postponed and is due to take place in 2021 in a virtual format. The main product – a video is available at <https://www.youtube.com/watch?v=dVpjl6zBmyo>

Moreover, a media package for TV and radio stations around the Pacific to repeat the key messages in local languages has been made available:

Vanuatu sample - <https://www.youtube.com/watch?v=CyEwXqYkebM&feature=youtu.be>

Fiji sample - <https://www.youtube.com/watch?v=6H0tBFijB2g&feature=youtu.be>

### CREWS Output(s) 6: Gender-sensitive training, capacity building programmes provided

State Project Output(s) in this section	Overall Project Target	Target for reporting period	Progress by July 2020	Progress by December 2020





Ref.: 05013/2021-1.0 MS/TSC

6.1 Female staff in targeted NMHS have been trained on women in leadership.	1	N/A	1	1
<p><b>Narrative: briefly indicate the major issues or challenges faced and mitigation steps taken to addressing them. (150 to 200 words)</b></p> <p>6.1 Workshop took place in August 2019. 35 Women from 13 islands trained in Leadership, representing Meteorology, Hydrology and Climatology. The workshop took place prior to the Fifth Pacific Meteorological Council Meeting in Samoa, in August. The 1.5-day workshop focused on Leadership for women in meteorology and hydrology for Pacific Small Island States in WMO Regional Association V (South West Pacific). The workshop built upon and strengthened participants' leadership skills, with a focus on communication, confidence, and shared strategies for positive change at the national and international level.</p>				

#### 4.4 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	Target for reporting period	Progress by July 2020	Progress by December 2020
R.1 Development of long-term strategic plan for FMS/RSMC Nadi.	1	1	1	1
R.2 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.	HPC Servers Procured.	Procurement ongoing	Procurement ongoing



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R.3 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.
R.4 RSMC Nadi website and portal upgraded	1 upgrade of website and portal.	1 upgrade of website and portal.	Activity postponed.	Activity postponed.
<p><b>Narrative: briefly indicate the major issues or challenges faced and mitigation steps taken to addressing them. (150 to 200 words)</b></p> <p>R.1 Following the request from the Permanent Representative of Fiji, the strategic plan developed in 2017 is currently undergoing a revision to take into consideration the new structure of FMS and align with global frameworks and agreements such as the Paris Agreement, the Sustainable Development Goals and the Sendai Framework. The revised plan is in its final revision and is expected completed in Q1 2021.</p> <p>R.2 Due to the problems related to the delivery of HPC Servers under output 3.3, the implementation of high resolution NWP in Fiji is delayed. Capacity building will follow the delivery of HPC Servers in Q2 2021.</p> <p>R.3 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.</p> <p>R.4 To follow the implementation of high resolution NWP</p>				

## 12. Contributions to Value Propositions

<b>Gender Responsive</b>	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.
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	The project financed a Women in Leadership workshop in 2019, and requests sex disaggregated data from regional implementing partners where relevant.
<b>Multiplier</b>	Project components, such as CBEWS are building on existing and/or past successful initiatives and promoting these in in other countries. The components are building on activities first piloted under FINPAC and COSPPAC projects. 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.
<b>People-centered</b>	The CBEWS component led by SPREP is people-centred, and focuses on reaching communities that are not currently well connected with the NMHSs and is working with National Red Cross. In Niue, CBEWS is focused on youth and elders support through the boys and girls brigade. The choice of countries and communities were based on reaching the last mile. The impact-based coastal inundation forecasting systems for Kiribati and Tuvalu are implemented for specific identified communities and include assessments of these communities' vulnerability to coastal inundation and educating them on the risks associated with coastal inundation.
<b>Promote Coherence</b>	The project is promoting coherence through cooperation with other ongoing projects in the region (including KfW project, UNDP TCAP, UNDP RESPAC, UNDP CLEWS Project, and COSPPac). Recent examples of this is the shared workshops between the CREWS funded ADPC study and the ongoing scoping for the Weather Ready Pacific 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.
<b>Solution-oriented</b>	Under the SPREP CbEWS component, the inclusion of the Samoa National Meteorological Services in the Youth Koko or Cocoa Initiative programme is a significant move towards turning climate science to services that can be tailored to meet the needs of individuals and sectors. SPREP is looking at developing agrobulletins for the youth Cocoa Farmers which allows for them to be conduits of information and utilising climate science in agriculture and farming. The partnership between SPREP CbEWS and the Niue Boys and Girls Brigade is another example of the project working with the youth of the country to promote climate science and information as well as develop disaster preparedness plans and activities which allows for awareness as well. This model of working with the youth in the countries is empowering them, and allowing them to share new ideas and methods in disseminating climate and weather information. It is indeed good practice in bringing the youth onboard to deliver specific community activities.



<b>Unique</b>	The project through its consultants recruited supported the review of the Tonga Water Resource Bill which was later tabled in parliament and now approved by the King of Tonga, now called the Water Resources Act 2020. Before the Bill was tabled in Parliament, Cabinet instructed the Ministry to have another final series of consultations with the communities, this part was done directly by the counterpart in the Ministry and it was an opportunity for them to talk about the bill and really understand all its components when discussed with the Tonga villages via radio interviews and community consultations. It was the project empowering its staff to push ahead with this Bill that has been in draft since 1983. It is an enormous success for the project especially the people of Tonga and its Water Resources.
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### 13. Certification on Use of Resources

<b>Has there been any cases of non-compliance with the financial rules, regulations and procedures of your institution? If yes, please fill below</b>		<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
<b>Institution</b>	WMO		
<b>Firstname, LASTNAME of authorized representative</b>	Brian COVER		
<b>Position Title</b>	Chief, Finance Division		
<b>Date and Signature:</b>	25 Jan 2021 (see portfolio-wide declaration)		

### 14. Visibility products

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

<https://www.sprep.org/news/youth-farmers-learn-of-the-impacts-of-weather-and-climate-on-cocoa-crops>

<https://www.sprep.org/news/community-based-early-warning-systems-introduced-through-crews-project>



<https://www.sprep.org/news/la-nina-and-tropical-cyclone-season-high-on-the-pacific-agenda>

## 15. 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.*
  1. *PICOF-6 Report*
  2. *PICOF-7 Report*
  3. *Palau CBEWS Progress Report*
  4. *Niue CBEWS Progress Report*
  5. *SPC Q3 2020 Report*
  6. *SPC Q4 2020 Report*