

## Template for CREWS Project Status Report

1	<b>Project Title</b>	<i>Strengthening Hydro-Meteorological and Early Warning Systems in the Pacific (CREWS Pacific)</i>
2	<b>Project Reference</b>	<i>CREWS/RegProj/04/Pacific</i>
3	<b>Reporting Period</b>	June - November 2018
4	<b>Reporting Focal Point</b>	<i>Lina Sjaavik (lsjaavik@wmo.int)</i>
5	<b>Project Status Overview</b>	<p><i>Progress since last report:</i></p> <ul style="list-style-type: none"> <li>- <i>Pacific SIDS Project Steering Committee took place in Tonga 11 October 2018;</i></li> <li>- <i>The meeting approved the annual implementation plan, and requested additional development of strategic plans for additional countries (now: Fiji, Federated States of Micronesia, Kiribati, Nauru, Palau, Republic of Marshall Islands, Tokelau, Tonga and Tuvalu);</i></li> <li>- <i>The meeting requested that the funds originally allocated to an Automatic Weather Station (AWS) in Tokelau would be redirected to emergency communication;</i></li> <li>- <i>The roadmap for the implementation of high-resolution numerical weather prediction was finalized in July 2018;</i></li> <li>- <i>The project co-funded the Pacific Island Climate Outlook Forum (PICOF) in Fiji in October 2018;</i></li> <li>- <i>Support to the Severe Weather Forecasting and Disaster Risk Reduction Demonstration Project's Regional Subproject Management Team Meeting in Noumea, New Caledonia in July 2018;</i></li> <li>- <i>Initial introduction to impact-based forecasting during the Tropical Cyclone Committee in Noumea, New Caledonia in July 2018;</i></li> <li>- <i>The Tuvalu drought policy is being finalized (Oct 2018)</i></li> </ul> <p><i>Several important activities are scheduled to take place in November 2018, including:</i></p> <ul style="list-style-type: none"> <li>- <i>The initial planning meeting of Fiji FFGS</i></li> <li>- <i>Initial collaboration visit for the inclusion of radar data into Fiji FFGS</i></li> <li>- <i>Training in Numerical Weather Prediction (NWP) (Fiji Meteorological Service)</i></li> </ul>

6 **Project Activities Contributing to CREWS Outputs – National Projects**

<b>CREWS Output 1: Assessments of NMHSs capacities, user needs, alignment with other programmes socio-economic benefits</b>			
<b>Project Outputs and Estimated Progress to Date</b>	<b>Output Start &amp; End Date</b>	<b>Progress by June 2018</b>	<b>Progress by Nov 2018</b>
1.1 Regional assessment of public and private capacities, gaps and needs with respect to MHEWS governance, product generation and service delivery - <i>ToRs established. Consultancy to commence early 2019</i>	Q1 2019- Q4 2019	5%	10%
1.2 In-country assessments to establish baselines (in terms of both public and private capacities, gaps and needs with respect to MHEWS governance, product generation and service delivery) - <i>ToRs developed. National assessments planned for Cook Islands, Fiji, Kiribati, Nauru, Niue, Tuvalu, Tokelau</i>	Q1 2019- Q4 2019	10%	10%
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. - <i>Will be based on the above consultations</i>	Q3 2019	0%	0%
1.4 Map and facilitate the enhancement of existing, or the establishment of new bilateral and multilateral coordination and communication processes, mechanisms and arrangements among MHEWS stakeholders at regional level - <i>ToRs developed</i> - <i>Mapping scheduled for 2019</i>	Q1 2019- Q4 2019	0%	10%

<b>CREWS Output 2: Access and use of hazard and risk information</b>			
<b>Project Outputs and Estimated Progress to Date</b>	<b>Output Start &amp; End Date</b>	<b>Progress by June 2018</b>	<b>Progress by Nov 2018</b>
2.1: Implementation of a high-resolution NWP mesoscale model in Fiji	Q3 2018- Q4 2020	10%	15%

<ul style="list-style-type: none"> <li>- <i>Expert mission to Fiji in May 2018 to assess capacities and capabilities of RSMC Nadi</i></li> <li>- <i>The development of a roadmap for a high-resolution NWP mesoscale in Fiji was completed in July 2018</i></li> <li>- <i>Both BMKG (Indonesia) and BOM (Australia) are working to make high-resolution NWP LAM data from their models available to FMS</i></li> <li>- <i>Initial training on NWP global data planned for RSMC Nadi staff during 26-30 November 2018</i></li> </ul>			
<p>2.2: Access for FMS and RSMC Nadi to high-quality NWP products and relevant support tools</p> <ul style="list-style-type: none"> <li>- <i>WMO, ECMWF and FMS finalizing tripartite 3 year agreement for FMS access to ECMWF ecchart tool</i></li> </ul>	Q1 2019- Q4 2020	0%	15%
<p>2.3: RSMC Nadi website and portal upgraded</p> <ul style="list-style-type: none"> <li>- <i>Activity planned for 2019</i></li> </ul>	Q4 2019 Q4 2020	0%	0%
<p>2.4: Implementation of Fiji FFGS</p> <ul style="list-style-type: none"> <li>- <i>The agreement with HRC for procurement and delivery of FFGS was signed in April 2018.</i></li> <li>- <i>The first step towards implementing the NWP mesoscale model took place with the expert mission to Fiji in May 2018.</i></li> <li>- <i>The Initial Planning Meeting for Fiji FFGS will take place in Nadi, Fiji 12-14 November 2018, and radar ingestion will take place the following week.</i></li> </ul>	Q1 2019- Q4 2020	5%	15%
<p>2.5: Impact-based coastal inundation forecasting in Tuvalu and Kiribati</p> <ul style="list-style-type: none"> <li>- <i>Terms of reference developed with the Pacific Community (SPC).</i></li> <li>- <i>The initiation of project implementation under this output is pending the closure of Fiji Coastal Inundation Forecasting Demonstration Project.</i></li> </ul>	Q2 2018- Q1 2021	5%	5%
<p>2.6 Nowcasting products and system (develop and apply models) as agreed by participating NMHSs, global and regional centres</p> <ul style="list-style-type: none"> <li>- <i>Activity planned to commence in 2019</i></li> </ul>	Q3 2019- Q4 2020	0%	0%
<p>2.7 CAP Jumpstart workshops</p> <ul style="list-style-type: none"> <li>- <i>Workshops took place in Niue, Palau, Tuvalu, Fiji, Federated States of Micronesia, Nauru and Papua New Guinea in July 2017</i></li> </ul>	Q 2017	100%	100%
<p>2.8 Regional Climate Outlook Fora</p> <ul style="list-style-type: none"> <li>- <i>Co-funding Pacific Island Climate Outlook Forum in Fiji October 2018</i></li> </ul>	Q3 2018- Q3 2020	0%	10%
<p>2.9 National Climate Outlook Forums</p> <ul style="list-style-type: none"> <li>- <i>Support to Fiji NCOF (Feb 2018)</i></li> <li>- <i>Further NCOFs will be supported based on country requests</i></li> </ul>	Q1 2018- Q4 2020	10%	10%

2.10 National drought consultations - <i>National drought consultations took place in Kiribati and Tuvalu in December 2017. Drought policies are being finalized in November 2018.</i>	Q4 2017- Q4 2018	70%	90%
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<b>CREWS Output 3: Improvement of NMHSs service delivery</b>			
<b>Project Outputs and Estimated Progress to Date</b>	<b>Output Start &amp; End Date</b>	<b>Progress by June 2018</b>	<b>Progress by Nov 2018</b>
3.1 In-country training workshops on forecasting and warning services for severe weather - <i>Activity is delayed as no trainer has been available to carry out the training. Communication is on-going with NZ Met Service to identify trainers</i>	Q4 2018- Q4 2019	0%	0%
3.2 Other capacity building initiatives for NMHS - <i>Fellowship for two staff members from RSMC Nadi</i>	Q2 2018- Q2 2020	0%	25%
3.3 Regional workshops to initiate impact-based forecasting with relevant stakeholders and implement the WMO Strategy for Service Delivery - Initial presentation took place during the Severe Weather and Disaster Risk Reduction Demonstration Project (SWFDDP) regional subproject management team - Regional workshop was originally planned to take place in Solomon Islands 18-22 February, but will be rescheduled due to forecasters availability during tropical cyclone season.	Q3 2017- Q4 2020	5%	5%
3.4: <i>National workshops to initiate impact-based forecasting</i> - <i>To follow the regional workshop</i>	Q2 2019- Q4 2020	0%	0%
3.5: <i>Capacities of the Regional Centres/NMHSs targeted by the Project to deliver data, products and services and incorporate feedback are developed.</i>	Q4 2018- Q4 2020	0%	0%
3.6 <i>In-country workshops on the identification of best information dissemination pathways for various end users and enhancement of communication channels at national level (TV, mobile phone apps, websites, social media) following identified gaps</i> - <i>Fiji TV Weather presenter workshop took place in October 2017</i>	Q3 2017- Q4 2020	20%	20%
3.8 <i>Community-based mechanisms and activities to prepare and respond to impact-based forecasts and risk-informed warnings are in place</i>	Q1 2019- Q4 2020	0%	0%

- Activity will commence in early 2019.			
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**CREWS Output 4: Development of long-term service delivery strategies and development plans for NMHS**

<b>Project Outputs and Estimated Progress to Date</b>	<b>Output Start &amp; End Date</b>	<b>Progress by June 2018</b>	<b>Progress by Nov 2018</b>
<p>4.1: Development of long-term strategic plan for FMS/RSMC Nadi</p> <ul style="list-style-type: none"> <li>- Final draft of strategic plan for Fiji submitted to WMO in January 2018. Following discussions with FMS, the validation workshop has been postponed to Q1 2019</li> </ul>	Q1 2017-Q4 2018	90%	90%
<p>4.2: Development of long-term strategic plans for targeted NMHS</p> <ul style="list-style-type: none"> <li>- The ToRs are developed for the strategic plans Kiribati, Tuvalu, Tonga, Republic of Marshall Islands (RMI). WMO is currently processing the consultancy agreements for the consultants to develop the plans;</li> <li>- Consultancies for Kiribati and Tuvalu are scheduled to commence in November 2018;</li> <li>- Tonga and FMS are still in discussion with the NMHS</li> <li>- Following the Project Steering Committee in October 2018 Federated States of Micronesia, Nauru, Samoa, Palau and Tokelau are also included in the pipeline for strategic planning documents</li> </ul>	Q1 2017-Q4 2018	10%	15%
<p>4.3: Development of Meteorological Bills for targeted NMHS</p> <ul style="list-style-type: none"> <li>- The ToRs are developed WMO is currently processing the consultancy agreements for the consultants to develop the bills.</li> </ul>	Q1 2017-Q4 2018	10%	10%

**CREWS Output 5: Procurement and installation of high priority observation and information and communications technology (ICT) equipment**

<b>Project Outputs and Estimated Progress to Date</b>	<b>Output Start &amp; End Date</b>	<b>Progress by June 2018</b>	<b>Progress by Nov 2018</b>
<p>5.1 Procurement and installation of HPC for implementation of NWP LAM in Fiji Meteorological Service/RSMC Nadi</p> <ul style="list-style-type: none"> <li>- The expert mission to Fiji to identify the needs and capacities for installation of HPC took place in May 2018.</li> </ul>	Q1 2018-Q4 2020	10%	10%

<p>5.2 Assessment and upgrading of communication system between RSMC Nadi and the NMHSs (under the SWFDDP).</p> <ul style="list-style-type: none"> <li>- The needs of the NMHS have been preliminary identified, and the procurement process started in November 2018</li> <li>- The project supported the WIGOS/GCOS workshop that took place in Fiji in October 2017, and further identified regional observation needs.</li> </ul>	Q3 2018- Q4 2020	0%	5%
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**CREWS Output 6: Preparedness for response plans with operational procedures for dissemination, readiness to act with regular simulation exercises**

<b>Project Outputs and Estimated Progress to Date</b>	<b>Output Start &amp; End Date</b>	<b>Progress by June 2018</b>	<b>Progress by Nov 2018</b>
<p>6.1 Community mechanisms and activities to prepare and respond to impact-based forecasts and warnings are in place</p> <ul style="list-style-type: none"> <li>- Agreement prepared for signature in November 2018</li> <li>- Activity to commence in early 2019</li> </ul>	Q1 2019- Q4 2020	0%	0%

**CREWS Output 7: Targeted education and public awareness programmes available for warning systems and related public action**

<b>Project Outputs and Estimated Progress to Date</b>	<b>Output Start &amp; End Date</b>	<b>Progress by June 2018</b>	<b>Progress by Nov 2018</b>

**CREWS Output 8: Activities promoting gender equality in all aspects of early warning systems**

<b>Project Outputs and Estimated Progress to Date</b>	<b>Output Start &amp;</b>	<b>Progress by June</b>	<b>Progress by Nov</b>

	<b>End Date</b>	<b>2018</b>	<b>2018</b>
8.1 Targeted NMHS assess their capabilities to include gender equality in EWS - ToRs developed for the assessment of gender inclusions in EWS	Q1 2018- Q4 2020	10%	20%
8.2 Female staff in targeted NMHS have been trained on women in leadership - Training rescheduled for 2019	Q3 2018	0%	0%

### 6.1 REGIONAL OUTPUTS

<b>CREWS Regional Output A: Assessments of institutional capacities of regional centers to meet NMHSs' needs, alignment with other programmes socio-economic benefits</b>			
<b>Project Outputs and Estimated Progress to Date</b>	<b>Output Start &amp; End Date</b>	<b>Progress by June 2018</b>	<b>Progress by Nov 2018</b>
<i>Project output a.1: Assessment of Capacities and Needs of FMS/RSMC Nadi</i> - An expert mission to Fiji took place in May 2018. The Expert Mission assessed the current capacity and capabilities of FMS and RSMC Nadi to provide services to Fiji and other countries served by RSMC Nadi.	Q1 2018- Q4 2020	80%	

<b>CREWS Regional Output B: Training for regional WMO and intergovernmental organizations to provide regional climate/weather services</b>			
<b>Project Outputs and Estimated Progress to Date</b>	<b>Output Start &amp; End Date</b>	<b>Progress by June 2018</b>	<b>Progress by Nov 2018</b>

7	<b>Funding Spent</b>	USD 279,000 (CREWS MDTF) USD 419,310 (Canada CREWS)
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<b>Changes in Organization and Operating Procedures, Project Viability and Sustainability</b>	<p><i>The project outputs have been slightly updated since June 2018 to better reflect the planned activities under the project.</i></p> <p><i>The project has further strengthened its collaboration with other relevant projects for hydro-meteorological development, demonstrated by the co-organization of the Project Steering Committee the UNDP Disaster in Pacific Small Island States (RESPAC) project, and coordination with the Australian Climate and Oceans Support Programme in the Pacific (COSPACC).</i></p>
9 <b>Lessons Learned</b>	<p><i>PSC-2 requested further investments in the region, highlighting that several of the activities planned for Fiji, Kiribati and Tuvalu including coastal inundation forecasting, and flash flood guidance system could be replicated in other countries and territories across the Pacific region.</i></p>
10 <b>Documents</b>	<p><i>Fiji Mission Report including Roadmap for Implementation of Mesoscale NWP in Fiji</i></p>