

Proposed decisions on the inclusion, in the pipeline list, of additional funding for the Pacific Region

1. The current list of CREWS pipeline countries is found in Annex 1 of this document.
2. The Steering Committee is invited to review and approve the inclusion of additional funding to the Pacific Region to the pipeline list.

Country/Region (in alphabetic order)	Indicative portfolio	Short description
Pacific	USD 2.5 million	The project for additional funding will build on and enhance the ongoing CREWS Pacific SIDS project "Building resilience to high impact hydro-meteorological events through strengthening MHEWS in the SIDS" and Environment and Climate Change Canada (ECCC) CREWS project in SIDS.

3. A project brief, providing further information on the proposed project in the Pacific, is attached as Annex 2.
4. The Steering Committee is further invited to consider inviting the CREWS Implementing Partners to develop a project proposal for additional funding for the Pacific Region project.
5. The project proposal will be prepared in accordance with the procedures set-out in the *CREWS Operational Procedures Note No. 1 Programming and Project Development* and to be submitted at a date to be defined, to the Steering Committee for consideration, review and approval for funding, pending the availability of funds in the CREWS Trust Fund.

ANNEX 1 – CREWS Pipeline countries

Pipeline country briefs are available in the CREWS website: <https://www.crews-initiative.org/en/projects>

Country/Region (in alphabetic order)	Indicative portfolio in US\$ millions	Proposed Partnerships
Benin	3.0	(WB/GFDRR; WMO)
Bhutan	3.5	(WB/GFDRR; WMO)
Curacao	1.6	(WMO;WB/GFDRR)
Ethiopia	3.0	(WB/GFDRR; WMO)
*Haiti	1.5	(WB/GFDRR; WMO)
Indian Ocean Region	2.5	(WMO;WB/GFDRR;UNISDR)
Madagascar	3.0	(WB/GFDRR; WMO)
Mozambique	2.0	(WB/GFDRR; WMO)
Sierra Leone	2.0	(WB/GFDRR; WMO)
**West Africa	3.5	(WB/GFDRR; WMO)

* Financing decisions to be discussed at the 9th Meeting.

** Financing decisions to be discussed at a later date.

ANNEX 2 –Pipeline Country Brief

Pipeline Pacific SIDS Brief

Country /Region	Pacific SIDS Region (Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Republic of the Marshall Islands, Nauru, Niue, Palau, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu, and Vanuatu).							
LDC or SIDS Profile	Level of Disaster Risk	Very High	Average annual loss to disasters	USD 3.9 billion (1983-2012) ¹ USD 284 million per year ²	Access to information & communications (ICT index): Ranking in the ITU’s ICT Development Index 2017 ³	Fiji (107); Tonga (109); Vanuatu (141); Kiribati (154); Solomon Islands (157).	Capacity of NMHSs	Low
	Status of hydromet and EWS	Low/medium highly variable within the region depending on country and hazard.	Disaster loss and risk data to inform early warning	8 Pacific SIDS with highest average annual disaster losses scaled by GDP: Vanuatu, Niue, Tonga, Federated States of Micronesia, Solomon Islands, Fiji, Marshall Islands and Cook Islands ⁴ .	Demand/Priority	High	Leveraging potential	High
Context	The 14 SIDS (Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Palau, Samoa, Solomon Islands, Tokelau, Tonga, Tuvalu and Vanuatu) have a total population estimated at 2.5 million in 2019 ⁵ . There is considerable variation across these							

¹<https://unctad.org/en/Pages/ALDC/Least%20Developed%20Countries/UN-list-of-Least-Developed-Countries.aspx>

²https://unfccc.int/files/adaptation/cancun_adaptation_framework/loss_and_damage/application/pdf/litea.pdf

³<http://www.itu.int/net4/ITU-D/idi/2017/>

⁴<http://www.worldbank.org/content/dam/Worldbank/document/EAP/Pacific%20Islands/climate-change-pacific.pdf>

⁵<https://sdd.spc.int/topic/population>

14 Pacific SIDS in terms of per capita income levels. Most countries have income levels of less than US\$5000/capita. Four SIDS in the Pacific region are designated Least Developed Countries (LDCs) – Solomon Islands, Vanuatu, Tuvalu and Kiribati⁶. Seven countries in the Pacific SIDS region are eligible for International Development Association (IDA) credits, which target the world's poorest SIDS (Federated States of Micronesia, Kiribati, Marshall Islands, Samoa, Tonga, Tuvalu, and Vanuatu). In general, the economies of most Pacific SIDS are small, fragile and susceptible to external shocks. The dispersed geographic nature of the region, its cultural/ethnic diversity and their limited human and financial resources present many challenges in terms of the disaster risk management and reduction.

The 2018 World Risk Index states that in a 5-year comparison of 172 countries, disaster risk is at its highest in Oceania⁷ (Pacific SIDS region): Vanuatu 1; Solomon Islands 4; Fiji 10; Kiribati 15. According to the “Hydro-meteorological Disasters in the Pacific” SPC-SOPAC report, of the 615 disaster events between 1983-2012, 75% were hydro-meteorological in nature, the most common being cyclones followed by floods, the total cost of which is estimated at USD 3.9 billion⁸. Tropical Cyclones represent 42% of all disasters in the region between 1983 and 2012⁹. More recently severe Tropical Cyclones Gita, Winston, Pam and Evan heavily affected the region with losses and damages estimates are around US\$ 1.7 billion. Floods are the second most common disaster, representing 16 % of disasters in the region followed by droughts that correspond to 4 %¹⁰. Sea Level Rise (SLR) is also projected to contribute to greater storm surge impact and result in sea flooding and erosion of low-lying coastal areas and atoll island states, such as Tokelau, Tuvalu and Kiribati.

Economic losses amplify the impact of a disaster. Of the 20 countries in the world with the highest average annual disaster losses scaled by GDP, eight were Pacific SIDS¹¹. The annual impact of disasters on Pacific SIDS economies is estimated at USD 284 million¹²; and the estimated cost of damages and losses suffered by Pacific SIDS as a result of recent natural disasters ranges from 2.6 % to 28 % of national GDP¹³.

The proposed CREWS Pacific SIDS 2.0 will build on the successes of the on-going CREWS Pacific SIDS project “Building resilience to high impact hydro-meteorological events through strengthening MHEWS in the SIDS” and Environment and Climate Change Canada (ECCC) CREWS project in SIDS. The proposal also responds to expressed needs articulated by Member States at the Pacific Met Council Meeting which took place last August¹⁴ and the Pacific Project Steering Committee Meeting.

Noting that an essential step to achieve resilience is to ensure hydro-meteorological services are science based and tailored to the needs of various end-users; the project will further strengthen the co-production process to achieve transformational change in the quality,

⁶ <https://unctad.org/en/Pages/ALDC/Least%20Developed%20Countries/UN-list-of-Least-Developed-Countries.aspx>

⁷ <https://reliefweb.int/sites/reliefweb.int/files/resources/WorldRiskReport-2018.pdf>

⁸ https://library.wmo.int/doc_num.php?explnum_id=6381

⁹ https://library.wmo.int/doc_num.php?explnum_id=6381

¹⁰ https://library.wmo.int/doc_num.php?explnum_id=6381

¹¹ Specifically, Vanuatu, Niue, Tonga, the Federated States of Micronesia, the Solomon Islands, Fiji, the Marshall Islands and the Cook Islands;

<http://www.worldbank.org/content/dam/Worldbank/document/EAP/Pacific%20Islands/climate-change-pacific.pdf>

¹² https://unfccc.int/files/adaptation/cancun_adaptation_framework/loss_and_damage/application/pdf/litea.pdf

¹³ https://www.gfdrr.org/sites/default/files/publication/2015.06.25_PCRAFI_Combined-%5BCompressed%5D-rev-0.9.pdf

¹⁴ Report from the PMC - <https://www.pacificmet.net/pmc/meetings/pmc-5>

	<p>accessibility and use of weather and climate services. It will continue to build a more people-centred approach to building EWS by engaging with national stakeholders and members of the community and promoting risk informed early action (preparedness and mitigation/prevention) suited to face the rising risks of high impact weather, water and climate events in the region and help communities receive earlier warnings of potential disasters. Further, the project will ensure gender mainstreaming in all its outputs and activities throughout the full value chain.</p> <p>Sustainability of the project will be achieved through engagements with the relevant political entities, regional and national stakeholder, as well as promote awareness of the socio-economic value of quality early warning, and weather and climate services. Project activities will be anchored to and ensure active engagement of the Pacific Met Council¹⁵, which provides policy relevant advice on the needs and priorities of its member countries and territories in relation to meteorology (weather and climate) and related fields; South Pacific Regional Environment Programme (SPREP), the region's key inter-governmental organisation for environment and sustainable development and whose purpose is to promote cooperation in the South Pacific Region to ensure sustainable development for present and future generations; Pacific Community (SPC), the principal scientific and technical organisation in the region supporting the well-being of Pacific people through the effective and innovative application of science and knowledge, guided by a deep understanding of Pacific Island contexts and cultures. The Pacific Islands Meteorological Strategy¹⁶ (PIMS), a strategy document that supports meteorological bodies across the Pacific to provide related services to their constituents, and the Pacific Roadmap for Strengthened Climate Services, were endorsed by Pacific ministers responsible for meteorology during the 4th Pacific Meteorological Council (PMC) in 2017. The Fiji Meteorological Services is the Regional Specialized Meteorological Centre (RSMC Nadi) works to provide high-resolution predictions of flash floods and other hazards, boosted by expertise from Australia and New Zealand meteorological services. Working through these institutions and the PIMS will support ensuring the sustainability of investments and their continuity beyond the life of the project.</p> <p>The project also leverages co-funding support from other regional projects such as the UNDP Disaster Resilience for Pacific Small Island Developing States (RESPAC) Project¹⁷, UNDP Tuvalu Adaptation Project¹⁸ (TAP) and the World Bank Pacific Resilience Project¹⁹ (PREP). To leverage the results achieved through these investments, and ensure the medium-term sustainability of the projects, targeted capacity development would be included in the project.</p>	
<p>Priority Needs</p>	<p>The outcomes and outputs indicated are building on the ongoing complementary projects in SIDS (CREWS Pacific SIDS and ECCC Canada CREWS). The activities are indicative and will be further validated with stakeholders in the region and countries involved.</p> <p>CREWS Outcome 1: Improved Governance – Strengthened governance structures/mechanisms for the Regional Centres/NMHSs targeted</p>	

¹⁵ <https://www.pacificmet.net/pmc>

¹⁶ https://www.pacificclimatechange.net/sites/default/files/documents/PIMS_2017-2026_FINAL-.pdf

¹⁷ <https://www.pacific.undp.org/content/pacific/en/home/operations/projects/resilience-sustainable-development/respac-project.html>

¹⁸ <https://www.adaptation-undp.org/projects/tuvalu-coastal-adaptation-project>

¹⁹ <http://www.projects.worldbank.org/P154840?lang=en>

	<p>by the project are in place.</p> <p>The objective of this outcome is to create an enabling environment for NMHSs and other relevant institutions in the region. Activities will include the development and/or update of the National Strategic Plans (NSP) and Met Bills. The strategic plans are developed using WMO's National Strategic Planning Guidelines and Template to ensure a harmonized approach between all countries (gap identification, priorities and needed investments) while taking into consideration the national landscape and development plans. The NSP is expected to articulate not just the services' top level vision but should also include a mapping of existing activities and gaps in capacity, including identification of relevant partners (including resource institutions), to enable them to effectively perform their mandate.</p> <p>The Met Bills are national legislations, typically endorsed by Parliament that recognize the official mandate and functions of NMHSs and articulate its role in contributing to protection of life, property and economic development. The bills also provide the NMHSs as responsible for the promotion, development, management, control or provision of meteorological or hydrological services in a given country. Note Fiji Met Bill²⁰ as example.</p>	
	<p>CREWS Outcome 2: Enhanced Product Development and Accessibility – Enhanced regional and national facilities and capacities of the Regional Centres/NMHSs targeted by the project to produce impact-based forecasts and risk-informed warnings of extreme/high-impact hydro-meteorological events, accessing and using global/regional data, products and services.</p> <p>The objective of this Outcome is to improve the quality of the regional and national products as well the capacity of forecasters to use the improved products addressing service delivery gaps as well as human and infrastructural challenges. Activities include implementing Impact Based Forecasting and Warning Systems (IBWFS) at the national level to enhance service delivery to specific sectors (e.g. health, energy, etc.) depending on identified regional/national needs and priorities. Further training is envisioned to ensure that staff is competent with the products created, including IT capacity development of NMHSs through regional and national training on WMO information systems and website development. Other activities include the implementation of the Flash Flood Guidance Systems (FFGS) in flood prone areas and increase in operational use across the region and / or coastal inundation early warning system for long distance ocean waves expanding existing activities implemented by the Pacific Community in Tuvalu and Kiribati.</p>	
	<p>CREWS Outcome 3: Enhanced Service Delivery – Regional Centres/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.</p> <p>The objective of this outcome is to bring producers and users together to improve the quality of services provided and encourage better use of these services through improved decision making in various sectors. Activities will include:</p> <ul style="list-style-type: none"> • Continued support for Pacific Climate Outlook Form (PICOF) and National Climate Outlook Forums (NCOFs) strengthening the co-production process and the user-led approach in the development and uptake of impact based and risk informed products and 	

²⁰ <http://www.parliament.gov.fj/wp-content/uploads/2017/03/Meteorological-and-Hydrological-Services-Bill-summary-32.pdf>

	<p>services tailored to sector needs</p> <ul style="list-style-type: none"> • Community based, gender sensitive early warnings through national based community workshops, incorporating traditional knowledge, to better understand the unique barriers faced by marginalized groups (including women, elderly and children). These activities will support the development of specialized community specific warnings in collaboration with community leaders to effectively disseminate early warnings and ensure maximum uptake and use in decision making for appropriate action. • Strengthen accessibility and dissemination of warnings via different communication channels. This includes conducting feasibility studies in countries to assess the infrastructural requirements for establishing effective communication channels; improving connectivity between the Fiji Met Service (RSMC Nadi) and other Pacific NMHSs to receive the necessary services; improve dissemination of warnings via television, radio and social media by hosting communication workshops on the use of social media, radio and television. 	
	<p>CREWS Outcome 4: Enhance communication and knowledge products and awareness programmes on early warnings developed.</p> <p>Activities will include awareness programmes on warning at the regional and national level (videos, factsheets targeted to different audiences, including women), the development of a communications strategy and action plan for NMHSs (in at least 4 pilot countries – 2 met and 2 hydro) and the development of knowledge products for sharing lessons learned, among others.</p>	
	<p>CREWS Outcome 5: Implement gender-sensitive training, capacity-building programmes through the conduct of targeted training for women and ensuring gender mainstreaming in all of the outputs and activities.</p> <p>Activities will include regional and national gender awareness training and workshops with a view to understanding the barriers women face in the Pacific. This will be coordinated with activities under CREWS Outcome 3. Provisions for regional and national women’s leadership workshops to support the establishment of a women’s network in the region is also included. Further consultations will take place to better understand needs and expectations from the region.</p>	
Overall Budget	\$2,5 million	
Time-frame	March 2020 – December 2022	
Partners	WMO, World Bank and UNDRR	