

Climate Early Warning and Capacity Building Unit

Proposed case studies

iii) Enhancing Climate Information and Knowledge Services for resilience in 5 island countries of the Pacific Ocean

Project ID: FP147

Regional - Small Island Developing States (SIDS)

UNEP programme to support climate resilience in Pacific Islands through early warning systems

A transformative new programme initiated by the UN Environment Programme (UNEP) aims to establish climate and ocean information services and multi-hazard early warning systems in Pacific Small Island Developing States, which are among the most vulnerable in the world when it comes to climate change, natural disasters and increasingly frequent or intense extreme climate events such as tropical cyclones, flooding and drought.

At its 27th Board meeting on 10 November 2020, the Green Climate Fund (GCF) approved the submission of a US\$49.9 million programme – of which USD 47.4 million represents the GCF grant – on Enhancing Climate Information and Knowledge Services for resilience in 5 island countries of the Pacific Ocean. This is UNEP's first multi-country programmatic initiative in the GCF, and will cover the Cook Islands, Niue, Palau, the Republic of the Marshall Islands and Tuvalu, countries with some of the world's smallest and most dispersed populations surrounded by vast ocean areas.

Strengthening the resilience and capacity of Pacific Small Island Developing States to adapt to climate change cannot be achieved without scientific knowledge and data on climate and its impacts. The new programme aims to develop climate science and information services that are essential for sustainable development, environmental management, disaster risk reduction, food security, health services, water resource management and energy efficiency. Early warning systems facilitate effective disaster risk reduction and climate change adaptation, empowering populations at risk to initiate timely and appropriate actions to reduce the impact of climate-related hazards and extreme weather events.

"Climate services and early warning systems address an urgent need to provide an evidence base for planning, decision-making and responses that have the potential to save lives and livelihoods. Improved capacity to observe and predict the impacts of a changing climate will contribute to more effective environmental management, disaster risk reduction and food security in Pacific Small Island Developing States," said Inger Andersen, Executive Director of UNEP. *"The Green Climate Fund Board's decision to invest in climate information and knowledge services in some of the countries most vulnerable to climate change is an important contribution to adaptation planning and science."*

The new UNEP programme will ensure reliable, real-time access to essential climate observation data, including the installation of a meteorological observation point on each inhabited island of the five countries, and deliver innovative approaches to disaster risk management through impact-based forecasting and forecast-based financing.

"I am pleased the GCF Board's approval of USD 47.4 million will strengthen our partnership with UNEP to enhance climate information and knowledge services for resilience in Pacific Ocean countries. As a partnership organization, GCF operates through a network of accredited entities that work directly with developing countries to foster a paradigm shift towards low-emission and climate resilient pathways. This programme will do this by improving capacities to monitor, model and predict climate impacts in the Cook Islands, Niue, Palau, Marshall Islands and Tuvalu," said Yannick Glemarec, Executive Director of the Green Climate Fund

At least 80 per cent of the islands' populations will directly benefit from the programme through the promotion of diversified, climate-resilient livelihood practices informed by improved climate observation data and risk knowledge. In addition, the programme aims to achieve a 15-30 per cent reduction in economic damage and losses incurred due to climate-related hazards, and to enhance the productivity of climate risk-informed sectors. Strengthened ocean services will support sustainable marine ecosystems management.

“Niue is highly vulnerable to climate-related hazards and extreme climate events. This GCF-funded programme will empower our island populations to initiate timely and appropriate actions to reduce the impact of hazards and extreme events by using improved climate information, early warning and risk knowledge. I applaud the efforts by everyone and the hard work towards the successful outcome of the approved programme Enhancing Climate Information and Knowledge Services for Resilience,” said Hon. Dalton Tagelagi, Premier of Niue. *“The benefits of this programme will impact greatly on the continued efforts of the Niue people to building a safer, more resilient Niue to impacts of Climate Change and towards achieving sustainable livelihoods for the Pacific.”*

The programme is part of UNEP’s commitment as a founding member of the Alliance for Hydromet Development, launched in 2019 to ramp up action that strengthens the capacity of developing countries to deliver high-quality weather forecasts, early warning systems, water, hydrological and climate services. Since its launch, significant progress has been made by the Alliance Members convened by the World Meteorological Organization (WMO) in designing the Systematic Observations Financing Facility (SOFF) to support countries to generate and exchange basic observational data critical for improved weather forecasts and climate services. This is will be important for the longer-term sustainability of the programme’s results.

“The GCF-funded UNEP programme will provide a major boost for the observational networks run by the national meteorological and hydrological services in the five Pacific Small Island Developing States, filling data gaps that are of national, regional and global significance. For the longer-term sustainability of these efforts, the creation of the Systematic Observations Financing Facility (SOFF) is critical. The SOFF will support Small Island Development States and developing countries in new ways to substantially increase sustained generation and international exchange of basic observational data,” said Petteri Taalas, WMO Secretary-General.

“As the GCF Nationally Designated Authority (NDA) for Tuvalu, I take this opportunity to acknowledge and appreciate all the work that UNEP has done that has enabled this programme to be considered by the GCF Board. The support and efforts put forth by the national team from the Tuvalu Meteorological Service and the Climate Change Department in the formulation of this project proposal is highly commended. At this opportune time I sincerely thank the GCF Board and its Secretariat for their intense work. We look forward to the timely implementation of the programme at the 5 Pacific Island Countries. The programme is envisaged to strengthen the provision of reliable, delivery of climate information to aid decision making for resilience building,” said Seve Paeniu, Tuvalu’s Minister for Finance and Climate Change.

“Pacific Small Island Developing States are highly vulnerable to climate-related hazards and extreme climate events, such as tropical cyclones, flooding and drought. This Programme will empower island populations to initiate timely and appropriate actions to reduce the impact of hazards and extreme events by using improved climate information, early warning and risk knowledge,” said Kosi Latu, Director General of the Secretariat of the Pacific Regional Environment Programme. *“This is particularly timely as Pacific Island Countries face the double-edged challenge of climate change and a global pandemic. As secretariat of the Pacific Meteorological Council and host of the Pacific Climate Change Centre, we welcome this project to assist with addressing strategic priorities in the 5 countries and we look forward to supporting its implementation.”*



Infrastructure for early warning systems. Picture: GCF Website, project FP147