

Weather Ready Pacific

The Weather Ready Pacific Program will reduce the human and economic cost of severe weather events across the Pacific – protecting communities and livelihoods, and making a strong positive contribution to the economy of the Region.

Benefits of the Weather Ready Pacific Program



Protecting communities: forecasts and warnings will be more specific about local conditions and will be clearer about potential impacts of the weather; enabling people to make better-informed decisions. **Communities will know more, earlier and be safer.**



Supporting economies: improved forecasts and warnings will support timely and targeted preparedness measures, limiting the economic impact of severe weather events (securing infrastructure, relocating stock and supplies etc); for some countries, strengthened ability to provide industry-specific forecasting, leveraging enhanced productivity.



Strengthening security: Better access to reliable weather information supports the region's maritime surveillance and fisheries management initiatives, and enables better preparedness for events that could lead to political and/or social destabilisation – energy management, food and water availability



Enhancing connectivity: by strengthening the Pacific's integration into the global meteorological system, the region is less vulnerable to peaks and troughs in resourcing and support.

The Weather Ready Pacific Program ensures that the Pacific doesn't get left behind – participating in, and benefiting from, advances in forecast and warning systems for weather, hydrological and oceanic events – enabling increased accuracy, geographic specificity and lead time of forecasts.

By being more integrated into the global system, the Pacific will be more empowered to advocate for Pacific interests in global settings.

The need

Pacific Island countries are vulnerable to a wide range of weather, climate and ocean extreme events, including tropical cyclones and typhoons, earthquakes, volcanic eruptions, tsunami, drought, storm surges and flash floods. They have devastating impacts on communities through loss of life and damage to infrastructure, homes, agricultural lands, livelihoods, industries and economies. Climate change is increasing this vulnerability to extreme events by increasing their intensity and/or frequency.

The National Meteorological and Hydrological Services (NMHSs) deliver forecasts and warnings of these events. They are essential to the safety and well-being of Pacific people and communities.

NMHSs strive to improve their services but critical gaps remain in governance arrangements, observation networks, computing and communication equipment, forecasting systems that are variable in approach and quality, and the number and the number of qualified meteorological and technical staff to develop and deliver accurate, localised and impact-based forecasts and warnings.

To address critical gaps and to provide a sustainable and harmonised regional approach, a decadal response is urgently needed. Achieving transformational and sustained change across the Pacific requires substantial resourcing but the returns on this investment will be significant.

Key elements of the Program

Over a decade, comprehensively strengthen the full hydro-meteorological system: with enhanced data, underpinning global-standard modelling, enabling strengthened forecasts and warning, translated and communicated to clearly convey impacts, reaching target communities in a timely way, managed by technically skilled staff in effective organisations.

- Deliver a *Pacific Weather Exchange* through which Pacific nations will have assured access to localised, accurate and timely forecast and warning products derived utilising world-leading forecasting capability.
 - These will be generated utilising computational capability that exists only at World Meteorological Centres, funnelled into the Pacific Weather Portal which will be supported by Regional Specialised Meteorological Centres.
 - National Meteorological and Hydrological Services will be supported by the program to identify and address their individual operational priorities to ensure this foundational capability is leveraged to best effect given their unique contexts.
- Enable NMHS staff to communicate clear, simple forecasts and warnings such that their target audiences (communities, governments, industry) can understand likely impacts – what the weather will do rather than what the weather will be.
- Build an enhanced hydro-meteorological-oceanic infrastructure network and associated IT equipment that meets emerging and future needs and complements existing and planned infrastructure initiatives. Millions of additional data points to be ingested into the global forecasting system, improving forecasts for the Pacific and beyond.
- Strengthen a regional and national cohort of trained, skilled forecasters, hydrologists, observers, electronics technicians, and information and data technologists anchored by accredited courses facilitated through a Regional Training Centre in Fiji supplemented by on-line and twinning initiatives.
- Support and strengthen regional and national governance and institutional arrangements, targeting leadership, planning, and management and regional coordination with the goal of leaving behind a robust and self-supporting regional network of NMHSs.