

Annex 2: Contributions by PACCSAP Science Program to implementation of Pacific Key Outcomes/Regional Priority Actions for Pacific Islands Meteorological Strategy 2012-21

Key Outcome	PACCSAP science contributions to implementation of <i>Regional Priority Actions</i>
<p>PKO 4: Multi-Hazard Early Warning Systems for tropical cyclones, storm surges, waves and tsunami in the PICTs' region are implemented and improved</p>	<ul style="list-style-type: none"> ○ Development of tropical cyclone seasonal forecast and longer term projection capabilities and tools, including four POAMA-based seasonal predictions tools (temperature and rainfall, SST, SLR and tropical cyclones), updated CMIP5 global climate model regional and national projections and downscaled simulations, Pacific Tropical Cyclone Data Portal, Tropical Cyclone Risk Model and downscaled simulations ○ Development of wave hindcast dataset, projected wave climate database and ensemble of wave projections ○ Analysis of historical extreme sea level events and assessment of projections of extreme sea level events for Fiji and Samoa and wave transformations for extreme sea level events in Tuvalu
<p>PKO 6: Climate information and prediction services, including drought prediction, in the PICTs' region are improved</p>	<ul style="list-style-type: none"> ○ Development of climate science tools, including Pacific Climate Futures, CliDE climate data management system and Pacific climate data portals, and delivery of training and technical support for application of such tools to NMSs and Pacific island country (PIC) stakeholders ○ Provision of new information to enhance understanding of large-scale climate drivers and processes affecting climate variability and change in the Pacific, including ENSO, SPCZ, ITCZ and Western Pacific monsoon, targeted at NMSs and PIC stakeholders in regional organisations and universities ○ Provision of updated (CMIP5-based) global climate model projections of selected climate parameters for western tropical Pacific partner countries, including applications to assess vulnerability to/risks of natural hazards such as drought, flooding, tropical cyclones etc. ○ Provision of new information and seasonal prediction tools (data portals and dynamical models) for selected climate extreme parameters, including SLR, temperature, tropical cyclones and rainfall, to facilitate drought, flooding and storm-related disaster risk management in response to climate variability and change ○ Provision of new information to enhance understanding of ocean acidification and coral bleaching systems and processes and associated risks, including preliminary development of seasonal/extreme SST and coral bleaching risk portal ○ Development of regional science communication and capacity building products and support, including supplementary country report and synthesis report in collaboration with NMSs, regional science training and support activities for NMSs and regional media, science forums and mentoring and attachments involving NMSs, as well as customised communication products for broader (NMS stakeholder) audiences, including non-technical synthesis report, animations and training materials.

<p>PKO 8: PICTs' historical climatological data are preserved</p>	<ul style="list-style-type: none"> ○ Development of CliDE climate data management system and Pacific climate data portals, and delivery of training and technical support for development and application of such tools and for rescue, digitisation, QA/QC, homogenisation and reporting of historical Pacific climate data records in collaboration with NMSs
<p>PKO 10: Regional and NMSs are more capable and effective</p>	<ul style="list-style-type: none"> ○ Delivery of regional science forums including (but not limited to) Climate Extremes Workshop in Noumea, Science Symposium and Technical Training Workshop in Honiara, delivery of PAdClim and Climate Science Winter Schools in Melbourne, science mentoring and attachments in Melbourne and PICTs, science training and education events at USP in Suva, tools training in support for Pacific Climate Futures and CliDE throughout the Pacific etc, joint authorship of science publications and conference presentations and posters and support for attendance at ISCHMO 10 in Noumea and Climate Services Forum in Suva, all of which have involved high level participation and in many cases collaboration with NMSs.
<p>PKO 11: Education, training and capacity development activities in the fields of meteorology and climatology are coordinated and improved</p>	<ul style="list-style-type: none"> ○ See PKO 10 - Ditto
<p>PKO 13: Enhanced strategic partnerships and collaboration with UN, regional and national organisations and agencies</p>	<ul style="list-style-type: none"> ○ Implementation of Honiara Climate Science Symposium and Technical Training Workshop involving SPREP and NMSs, and participation in/support for NMS involvement in Climate Services Forum in Suva