"Sustainable Weather, Climate, Oceans and Water Services for a Resilient Pacific"

Fourth Meeting of the Pacific Meteorological Council (PMC-4) Working Papers

14-18 August 2017
Honiara
Solomon Islands

Agenda Item 19.0: Climate and Information Prediction Services Project

Purpose:
1. To provide an update on the Republic of Korea-Pacific Islands Climate Prediction Services project.
2. To report on activities and achievements conducted under the auspices of project through APEC Climate Center (APCC) and SPREP

Background:
3. The Republic of Korea-Pacific Island Climate Prediction Services project (ROK-PI CliPS) aims to provide nationally-tailored seasonal climate prediction information and builds the prediction capacity of Pacific Islands. It is funded by the Government of Korea through the Pacific Island Forum Secretariat (PIFS) and implemented by the APEC Climate center (APCC) and SPREP. The project will run for 3 years from 2014-2016, with a one-year extension granted by PIFS to end in 2017. The Regional Project will benefit Cook Islands, FSM, Fiji, Kiribati, RMI, Nauru, Niue, Palau, PNG, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu

4. The main objective of the project is to **strengthen the adaptive capacity of vulnerable communities to climate risks at the seasonal timescale**. The project aims to build the adaptive capacity of vulnerable communities and users of climate information and services through the strengthening of NMHS capacity to contribute to community resiliency and national development planning. Tailored climate prediction information using a region-specific system will be developed.

5. The project will develop region-specific downscaling methodologies and establish a climate prediction system. The work will consider the unique geographic features of the Pacific and build upon the programmes named above, utilizing APCC's multi-model ensemble prediction system and support from the Pacific Met Desk Partnership. APCC will not only provide information but also assist the PICT's NMHSs to self-operate the system after transferring the dynamical seasonal forecasting system to SPREP Pac Met Desk Partnership. This system will be connected to the climate prediction information system in APCC via the Internet. Then, APCC and the Pacific Met Desk Partnership will develop guidelines and train participating NMHS in order for them to effectively analyze the information and apply the prediction to support decision-making processes.

Update:
6. Consistent with the project implementation agreement signed on 24ᵗʰ October 2014, the following activities have been carried out.

6.1 The ROK-PI CliPS Regional Training and Inception Workshop was conducted on 15-17 July 2015, and hosted by the Tonga Meteorological Services. The workshop was a success with all National Meteorological Services represented (except for FSM) and actively participated in the deliberations. The workshop covered prediction methodologies, statistical downscaling, information communication technologies and the climate prediction system.

6.2 The second ROK-PI CliPS Regional Training workshop was conducted on 18-23 July2016 in Rarotonga, Cook Islands hosted by the Cook Islands Meteorological Services, where each project beneficiary country NMHS received a laptop with all relevant data and software installed in order to be able to conduct high-level climate research.. The workshop attracted a lot of attention from NMSs in the region and therefore participants from American Samoa and Wallis and Futuna participated in the training where 24 participants successfully completed the training.

6.3 The online climate prediction system was installed at SPREP in December 2015. The system is available at http://clikp.sprep.org/ to all NMSs as well as a Users Manual to guide the operations and navigation.

6.4 National demonstrations of the online CLIKP climate prediction system completed for Republic of Marshall Islands, Samoa and Vanuatu (2). Resources available to the project has contributed to the number of national demonstration completed.

6.5 A monthly regional climate bulletin was developed from dynamical modelling on CLIKP to support the generation of national climate forecasts. The bulletins are available online on the PMC website www.pacificmet.net. The project has received good feddback from NMSs with regards to this new regional product. The support that the project has provided with regards to dynamical information has allowed NMSs enhance their own national forecasts to their own users. Kiribati has included dynamical information into their bulletin. Samoa is now providing a seasonal temperature forecast to support sectoral planning using information from CLIKP.

6.6 Standard Operating Procedures (SOPs) to govern the use of dynamical information on CLIKP has been developed for countries; starting in Vanuatu and Samoa and shortly with remaining NMSs. SOPs will allow for dynamical prediction find a place in the day-to-day operations of NMSs and ensure sustainability.

6.7 To enhance the capacity of Pacific Island NMHS's, 9 officers were invited to the APEC Climate Center for the 2017 Young Scientist Support Program from May to July.

Recommendations:

1. The Meeting is invited to:

    ➢ **Note** through ROK-PI CliPS and its partners considerable progress has been made on the implementation of the project and complements the work of GFCS and implementation of the PIMS.
    ➢ **Recommend** that additional resources will be needed for communication, capacity building and training of NMS and in-country stakeholders to ensure that the tools and products are taken up for decision making in sectors such as Agriculture, Health, Water, Disaster Risk Reduction, and so on.

➢ **Recommend** additional resources to further develop current initiatives into a multi-model ensemble approach to combine dynamical and statistical-based models.

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Attachments

• Annex 1 Project Information leaftlet

17 July 2017.