



REPUBLIC OF THE PHILIPPINES
Department of Science and Technology
Philippine Atmospheric, Geophysical and
Astronomical Services Administration (PAGASA)
 Science Garden, Agham Road, Diliman, Quezon City 1100

Status of Implementation and Program / Project Evaluation and/or Assessment Reports

Project Title	Status
Assessment and Verification of Consortium for Small Scale Modeling (COSMO) Model Products Performance	<ul style="list-style-type: none"> - One paper was published already - There was a delay in the research due to internet problem in 2015, thus the research needed extension. - The COSMO workstation is being utilized in forecasting.
Refinement of the Japan Meteorological Agency Storm Surge Model	<ul style="list-style-type: none"> * Enhanced visualization of Storm Surge Model Forecast outputs and including: <ul style="list-style-type: none"> - Consideration of Astronomical Tide in the forecast - Map of potential storm surge inundation areas - Maximum Wind Swath for 50-km and 100-km radius from the center of the tropical cyclone - Simplified tabulated 24 and 48-hour forecast for storm surge * Automated the generation of Storm Surge Inundation Map based from JMA Storm Surge Model Output and IFSAR Elevation Dataset * PAGASA of Storm Surge Website - in its initial phase, still under construction
An Investigation of Tropical Cyclogenesis at lower latitudes (locations below 5°N	<ul style="list-style-type: none"> - Ended on December 31, 2015 - Technical report is being revised.
Evaluation of Selected Dynamical and Statistical Models for Short Term Climate Prediction in the Philippines	<ul style="list-style-type: none"> - Ended on December 31, 2015 - Technical report is being revised.
Digital Rain gauge for Community-Based Early Warning System	<ul style="list-style-type: none"> - Resumed the validation of the rain gauge used thru comparisons with Agromet rain gauge and calibrated rain gauges of Unit. - Resumed the preparation of the draft of the final report. - Submitted the parts specifications and budget estimate for three (3) sets of the digital rain gauges to be assembled and installed in 2016.

"tracking the sky... helping the country"

	<ul style="list-style-type: none"> - Maintenance of the installed digital rain gauge at Science Garden, Agromet Station. - Being proposed for extension, thus 3 sets of digital rain gauges will be assembled and installed at field stations in 2016.
<p>Development of Drought Monitoring Tool using Remotely-sensed Information such as Moderate Resolution Imaging</p>	<ul style="list-style-type: none"> * Downloaded/Collected MODIS NDVI data from 2001 to 2012 * Initial procedures on the processing of the data has been done, such as: <ul style="list-style-type: none"> - Geo-referencing - Masking area of interest - Stacking of data for time series analysis * Developed the methodology to monitor vegetation's: <ul style="list-style-type: none"> - Crop condition To monitor the condition of a crop for a certain period, the remotely-sensed data or MODIS NDVI is compared with the data of the period in the history (from last year, 5 years average or 12 years average) - Crop growing profile Time series of NDVI image during the crop season is compared the historical time series profile for the last year, five years or 12 years * Developed the methodology to monitor drought <ul style="list-style-type: none"> - The Normalized Difference Vegetation Index is standardized or normalized by time of year. - The deviation of the current NDVI from the normal describes the probability or onset of drought.
<p>Cloud Seeding Operation (CSO) Using Doppler Radar and Upper Air Sounding in Central Luzon Affected by the El Niño Phenomenon</p>	<ul style="list-style-type: none"> * Technical Working Group was created with the participation of the PAGASA, Philippine Air Force, Bureau of Soils and Water Management (BSWM), and CAAP. Operational Plan was developed/established. Budget proposal was submitted to DPWH for funding. * The project is implemented by PAGASA in collaboration with Philippine Air Force, Bureau of Soils and Water Management (BSWM), and Civil Aviation Authority of the Philippines (CAAP) <ul style="list-style-type: none"> - Conducted "OPLAN LUZVIMINDA - CEBU" (December 14-22, 2015) - Conducted training-seminar-workshop on Cloud Seeding to technical personnel of VPRSD – Cebu. - Conducted dialogue and consultation meetings with provincial officials of Cebu and Bohol. - Monitored the daily operational suitability for seeding (Seed day or no Seed day) using VPRSD facilities and expertise (tutored/trained personnel) * Revised cloud model threshold values specific to Cebu and Bohol

Development of Drought Monitoring Index for the Philippines using the Standard Precipitation Index (SPI) as a Drought Monitoring Tool	- Computed the actual SPI by province for the month of November 2015
Enhancement of Farm Weather Services and Related Products for Agriculture	<p>* The project "Agroclimatic Zoning in the Philippines" is 100% approved:</p> <p>Region 5:</p> <ul style="list-style-type: none"> - 95% accomplished the data gathering / computation and analysis of the data - 95% accomplished the Review of Literature - 90% accomplished the discussion of results <p>Region 7-</p> <ul style="list-style-type: none"> - 75% accomplished the data gathering / computation and analysis of the data - 75% accomplished the Review of Literature - 50% accomplished the discussion of results <p>* 100% accomplished the validation of 10-day Regional Agri-weather Information</p> <p>* 100% accomplished the Tagalog version of 10-day Regional Agri-weather Information</p> <p>* 100% accomplished the book binding of 10-day Regional Agri-weather Information</p> <p>* 100% accomplished and submitted the updated FWSS Manual of Operations</p>
Site Validation of Climate Impact Assessment for Rice (non-irrigated) and Corn Fields	- Conducted survey, validated and interviewed farmers regarding crop conditions on rain-fed areas planting rice and corn at Catarman, Allen and Catubig, Northern, Samar on December 8-16, 2015
Downscaling using Providing Regional Climate for Impact Studies (PRECIS) Regional Climate Downscaling	- Completed the processing of the climate projections for the Philippines from WorldClim Data (arc 30 seconds) using CMIP5 models for RCP 4.5
DFID Project Building Capacity for Weather Forecasts and Warnings to Improve Early Warning of Extreme Weather and Resilience to Climate Extremes following Typhoon Haiyan in the Philippines	<ul style="list-style-type: none"> - Conducted RegCM4 simulations (2051-2099) using HadGEM4-ES (RCP 8.5) boundary conditions for the entire month of December at CAD Computer Room - Finalized and sent out the pilots invitation letter to the Office of the Secretary - Post-processed the downscaled CCAM-CMIP5 ERA-Interim as boundary condition (25km resolution, 1979-2015. Preparation of the new scripts for downscaling another GCM as boundary condition in CCAM-CMIP5 (RCP4.5)
Implementation of PAGASA Unified Meteorological Information System (PUMIS)	<ul style="list-style-type: none"> - Completion and acceptance of the PUMIS Project - Created temporary local network for data encoder volunteers - Monitored and checked data received from PUMIS - Corrected the data entry received from synoptic decoded for analysis
Implementation of Digital Archiving of 1,700,000 Observation Forms	<ul style="list-style-type: none"> - 100% completed the scanning of all 1,700,00 observation forms - Document archiving system is 100% completed.

