



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

Projects 2017

Project Title	Status
LOCALLY-FUNDED PROJECTS	
1. Advanced Data Consolidation, Enhancement of Web and Dissemination including Mirror Forecasting Project	<ul style="list-style-type: none"> - High Density Storage Servers, Multi-function high speed network printer and 8-port LCD console KVM switch including KVM cables were delivered - Various ICT items are for delivery such High-Speed Desktop Computer with 3 LED monitors, Notebook Computer with Portable LED Projector, Cloud-Managed WLAN Access Point with Internet security, and Digital HF Radio Data Collection System
2. Advanced Visualization and Enhancement of Weather Forecasting Project	<ul style="list-style-type: none"> - Installed the Video wall at Aeronautical Meteorology Services Section - Meteorological Satellite Desktop Servers with monitors were delivered
3. Unified Communication Project	<ul style="list-style-type: none"> - Various ICT equipment are for delivery such as Video Conferencing equipment with monitor and stand and Global Telecommunication System/Message Switching System (GTS/MSS) including Data Collection Platform (DCP) using Himawari-8
4. Integration of All Information System of HMD	<ul style="list-style-type: none"> - Various IT Infrastructure has been awarded to the winning bidder
5. Climate Monitoring and Prediction System (CLIMPS)	<ul style="list-style-type: none"> - Conducted training on Advanced Excel with three batches - Four ICT Cabinets were delivered - Various items are for delivery such as Multimedia license and ICT chairs
6. Farm Weather Information System	<ul style="list-style-type: none"> - Various ICT equipment and communication were installed and tested
7. Sectoral Impact Modeling System	<ul style="list-style-type: none"> - On-going process of the Purchase Order (PO) and waiting by January 2018 the Supply, Delivery, Installation and Testing of various ICT equipment: <ul style="list-style-type: none"> ▪ Data Storage expansion ▪ Desktop Computer-2 units ▪ Network Printer- 1 unit
8. Research and Development Information System	<ul style="list-style-type: none"> - BAC resolution was signed for the MATLAB software - Undergoing procurement process for high end workstations
9. Library and Training Management Information System	<ul style="list-style-type: none"> - Uploaded 3,500 books/journals titles and linked 2,125 journals and books - Encoded 968 books - Downloaded 1,312 technical journals and other related references - Scanned 350 pages of technical books and publications to electronic publications to be uploaded to the system - Conducted training on Management Contents of e-Library and Training System (Records and Information Management) - Conducted photo editing and web design using Adobe Photoshop C56

"tracking the sky... helping the country"

<p>10. Typhoon Formation, Structure and Intensity Change in Western NP and Wave Observation and Modeling</p>	<ul style="list-style-type: none"> - Developed Quality Control algorithm - Started using the algorithm provided by our counterparts to decompress and sector satellite images - Test experiments were done by assimilating pre-processed RADAR data to Weather Research and Forecasting (WRF) model using Taiwan's supercomputer. - Inclusion of the tropical cyclone (TC) dataset of PAGASA in the TAFIS v2 data server; Comprehensive discussion with CWB experts including crash course on database management of TAFIS2 - Inclusion of the tropical cyclone (TC) dataset of PAGASA in the TAFIS v2 data server; Comprehensive discussion with CWB experts including crash course on database management of TAFIS2 - Archived all Tropical Cyclones with Storm Surge Occurrences for project sites Cebu, Cagayan, Leyte, Basco, and Bicol Region - MOA signed between PAGASA and NAMRIA on data sharing - The TC best track data have been collected from various sources (PAGASA, JTWC, and JMA) - PAGASA personnel identified to attend the training at Central Weather Bureau, Taipei City, Taiwan
<p>11. Heavy Rain Monitoring and Forecasting in the Mountainous Area and Early Warning Landslides</p>	<ul style="list-style-type: none"> - Domain test run using Typhoon Pablo and Ruby - Downscaled the spatial resolution for high resolution model - Test run using Typhoon Pablo with longer temporal coverage - Post-processed test runs - Documented DReSS pertaining its installation, implementation and test runs - Installed AWS and ARGs
<p>12. Observations and Dynamical Downscaling of Seasonal and Sub-Seasonal Forecast</p>	<ul style="list-style-type: none"> - USB card type purchased and distributed to stakeholders and participants of the 97th National Climate Forum. - Conducted Video Conferencing with CWB <p>Topic discussed:</p> <ul style="list-style-type: none"> • CWB is developing a prototype 16-day S2S model to be shared with PAGASA by March 2018. • Proposed travel for CWB experts to PAGASA for Training/Workshop on the S2S Model and MPAS.
<p>13. Enhancing the Hydro-meteorological Hazards Monitoring and Risk Assessment Capabilities of PAGASA through the Adoption and Integration of NOAH Operating Systems</p>	<ul style="list-style-type: none"> - 60% accessed NOAH Hazard Maps (flood, landslide, and storm surge) displayed on the PAGASA's Met-hydro Decision Support Infosys (MDSI) using NOAH's Geoserver via Web Map Service NOAH Geoserver - ASTI's Hydro-met Sensors Data is being parsed by PAGASA then uploaded to PAGASA's Unified Meteorological Information System (PUMIS) and displayed through map visualization using (MDSI) - Continuous development of new PAGASA Website (development phase domain name in the works is http://bagong.pagasa.dost.gov.ph/) with additional products to be featured such as the ClimateX rain forecast, Meteogram using WRF Model, Active Hazard Alerts, NOAH Hazard Maps, and MDSI Integration - NOAH Hazard Maps (Flood, Storm Surge and Landslide) are now available on PAGASA's Weather Monitoring Tool (MDSI)
<p>14. DEWS PROJECT <i>Deployment of Early Warning System in Disaster Prone Areas</i></p>	<ul style="list-style-type: none"> - Conducted Water Assessment Level for Target Principal Rivers in Regions 2, 4A, 4B, 6, & 10 - Determined elevation with respect to Mean Sea Level (MSL) for target sites in Region 4B - IEC Campaign & Flood Drill for Regions 2, 7, 11, 12, 13 & CAR

FOREIGN ASSISTED PROJECTS

<p>1. NPGA Bicol Project <i>Improvement of Capabilities to Cope with Natural Disasters caused by Climate Change (Rehabilitation of Equipment for the Project to Strengthen Flood Forecasting and Warning System in the Bicol River Basin)</i></p>	<ul style="list-style-type: none"> - Conducted the evaluation & assessment of the stations that will be demolished and decommissioned: Malabog Tower, Ligao Rainfall Station, Bato Rainfall & Water Level, Camaligan Tower and Generator House, Camaligan Rainfall and Water Level Station and Balongay Rainfall and Water Level - Conducted the Project Launching and Ceremonial Groundbreaking IN Cam Sur Water Sports Complex and Pili sub-center on 09 Dec 2017 - Conducted the 12 weekly and 3 monthly meetings - Secured the Demolition Permit for Balonga and Malabog Tower - Secured the Access Pass for the Malabog Tower Site
<p>2. NPGA Mindanao <i>Japan's Non-Project Grant Aid for Provision of Japanese SMEs Products</i></p>	<ul style="list-style-type: none"> - Notice of award given to qualified contractor
<p>3. KOICA 3 <i>Automation of Flood Early Warning System for Disaster Mitigation in Greater Metro Manila</i></p>	<ul style="list-style-type: none"> - Project Launching and 1st Workshop was held on 17, 19-21 April 2017 <ul style="list-style-type: none"> • Day 1: Timberland Sports and Nature Club, San Mateo Rizal – Project Launching and 1st Workshop (100 Participants) • Day 2: Multi-Purpose Hall, Rizal Provincial Capitol, Antipolo City – for Barangays of Rodriguez, San Mateo, Cainta, Taytay, Antipolo, Pasig and Marikina (180 Participants) • Day 3: Lobby Executive Bldg. City Gov. Complex Maysilo Circle, Mandaluyong City - for Barangays of Mandaluyong, Makati, San Juan and Manila (140 Participants) • 2nd Floor Training Room, DRRM Building Kalayaan Ave., Quezon City – for Barangays of Caloocan, Malabon, Navotas, Valenzuela and Quezon City (190 Participants) - Invitation Training of Flood Forecasting and Early Warning System for Manager Level was held at Seoul and Seongnam, South Korea on 7-13 May 2017 - Conducted Hydrographic Survey and Discharge Measurement - Installation of Monitoring Equipment - On-site training for the equipment - Facilitated the bidding documents for the procurement of KOICA Vehicle - Joint inspection of KOICA and KICT was conducted for the installed monitoring equipment and command center. - Facilitated the application of MERALCO Line for the CCTV - Installed servers by migrating/integrating old system to the new system - Set up of the command center.
<p>4. RIMES Project <i>Development and Implementation of User-Relevant End-to-End Hydrological Forecast Generation and Application System for Disaster Mitigation in the Philippines</i></p>	<ul style="list-style-type: none"> - Conducted river cross- sectioning and tie up of elevation to MSL - Conducted Technical Workshop on transfer of operation of the hydrological model and Decision Support System - Integrated river cross-section, assessment level & corrected sensor height to the telemetry data system at Jalaur River Basin FFWC - Had IT work on the network system and remote access, transmitted and viewed the Hydromet data from Jalaur RBFFWC to HMD - Installed synchronization software (Goodsync) in RIMES server for pushing and pulling of data. - Created an account in HMD FTP server for RIMES data to be pushed to RIMES DSS. - Partial operationalization of Jalaur-Iloilo FFWS - Evaluation of DSS

<p>5. RAPID Program <i>Resilience and Preparedness towards Inclusive Development (RAPID) program under the Project Climate Twin Phoenix (PCTP)</i></p>	<ul style="list-style-type: none"> - Submitted the result of the simulation of flood models (5,25,100YRP) to CCC - Processed the Rainfall Intensity results from Global Climate Models provided by CAD - Simulated flood models using projected Climate Change Scenarios - Prepared and submitted Draft Technical Report including MHEWSS Proposal - Conducted IEC Workshop at Tacloban City
<p>6. JFreeDAM Project <i>Strengthening Capacity of Integrated Data Management of Flood Forecasting and Warning</i></p>	<ul style="list-style-type: none"> - The draft development plan of FFWS in 18 individual major river basins, which are elements composed of the Roadmap has been completed with prioritization for implementation - The draft mid-term plan is under preparation with cost estimate - Standard data format has been established while database is being established - The draft Quality Management Standards have been prepared and are being reviewed - Real time data integration procedures for existing FFW systems has been proposed and trial application has been implemented - The draft Standards of Telemetry System have been prepared and is upgrading to apply to actual bidding procedure in the principal river basins - The draft Guideline for RFFWC Operation is under preparation - The draft procedures of Flood Warning Dissemination is under preparation - The draft Staff Development Plan for RFFWC is under preparation in parallel with the draft Roadmap - H-Q curves have been preliminary fir at 6 selected sites based on the discharge measurement results. Flood warning water levels were tentatively set by geometric proportion of channel section at the target sites
<p>7. WIBI Mindanao Project <i>Scaling Up Risk Transfer Mechanisms for Climate Vulnerable Agriculture-based Communities in Mindanao</i></p>	<ul style="list-style-type: none"> - Submitted initial drafts of WIBI Correlation Report on specific weather parameters and crops (banana, cacao, coconut, sugarcane). - Conducted field validation of banana crop yield data on August 2017 in Davao City. - Participated in the 46th Session of IPCC in Montreal, Canada. - Conducted a Concluding Conference Presentation on: PAGASA's Role in Providing Effective Weather Risk Management Strategy held at EDSA Shangri-la, Manila on Dec. 05, 2017.
<p>8. NAP-AgS Project <i>Services for the development of municipal level sub-seasonal surface wave height and solar radiation forecast products under UNFA/GLO/616/UND on Integrating Agriculture Sectors into National Adaptation Plan</i></p>	<ul style="list-style-type: none"> - Provision of the Sea-level data on process. - Submitted the Progress Report (as of Nov. 2017) to FAO on Dec. 18, 2017
<p>9. ACIAR ASEM Project <i>Action Ready Climate Knowledge to Improve Disaster Risk Management for Small Holder Farmers in the Philippines</i></p>	<ul style="list-style-type: none"> - Drafted Section 3 for the ACIAR farmer survey/ questionnaire form - Gathered data on agricultural yield and ENSO occurrence, as well as pertinent manuscripts, to investigate the effect of ENSO phases on crop yield in the Philippines. - Prepared weather-climate-based decision making diagram for farming practices.