

FORM B

DEPARTMENT TARGETS ON KEY PROGRAMS AND PROJECTS TARGETS

KEY PROGRAMS/ PROJECTS	DESCRIPTION OF PROGRAM/ PROJECT OBJECTIVES	TOTAL PROGRAM BUDGET	PROGRAM BUDGET FOR FY 2015	RESPONSIBLE BUREAU/ OFFICES	DEPARTMENT FY 2014 ACCOMPLISHMENT	DEPARTMENT FY 2015 TARGETS/ MILESTONES	DEPARTMENT FY 2015 ACCOMPLISHMENT	% Accomplishment (as of December 2015)	REMARKS
(1)	(2)	(3)	(4)	(5)	(8)	(7)	(8)	(9)	(10)
NATIONWIDE OPERATIONAL ASSESSMENT OF HAZARDS (PROJECT)									
1. Establishment of the Flood Information Network (FloodNET) DURATION: July 23, 2012 - July 22, 2013	To provide rainfall forecast or percent chance of rain up to 4 hours lead time for 165 major cities and municipalities	P4.1M	No budget release for 2014 because the project is already completed.	University of the Philippines - National Institute of Geological Sciences (UP-NIGS)				100%	- The project has been completed in 2013.
2. Emergency Distribution of Hydrometeorological Devices in Hard-hit Areas in the Philippines (HYDROMET) DURATION: Dec. 29, 2011 - Dec. 28, 2012 (Extension Dates: 1st ext. - Dec. 29, 2012 - Dec. 28, 2013 2nd ext. - Dec. 29, 2013 - June 28, 2014 3rd ext. - June 29, 2014 - December 28, 2014)	The project aims to install 600 automated rain gauges (ARG) and 400 water level monitoring stations (WLMS) nationwide.	P150M	No budget release for 2014 because the total budget were already given since 2012.	Advanced Science and Technology Institute (ASTI), Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA)	- Completed the installation of the initial targeted 1,000 units (ARG and WLMS) - Deployed all 212 additional devices to the DOST-ROs - Installed 81 ARG and 10 WLMS out of the 212 additional devices	- Complete installation of the additional 212 devices through the Deployment of Early Warning Systems (DEWS) project	- Installed 156 ARG out of 174 targeted (89.7%) and 29 WLMS out of the 38 targeted (76.3%) from the additional 212 devices. The installation of the remaining devices from the additional 212 devices are being done under the Deployment of Early Warning Systems (DEWS) project	83%	- The project concluded on 28 December 2014 - The requested additional 212 devices were already deployed to the Regional offices. However, some of the devices could not yet be installed because there is no available SIM cards at the moment. The project team procured the SIM cards under the DEWS project last year but it reached to negotiated bidding due to lack of documents submitted to the BAC. And as of Dec 31, 2015, PO was still not issued due to time constraint that led to non-delivery of the SIM cards. Consequently, they have requested these items for carry over in the Year 3 budget of DEWS. Once approved, that is the only time they can ask the supplier to deliver the SIM Cards.
3. Nationwide DREAM Program (3D LIDAR Mapping) DURATION: December 20, 2011 - December 19, 2013 (Extension Period: - Project 1: Dec. 20, 2013 - Aug. 19, 2014)	DREAM aims to produce 3-D flood and hazard maps for the major watersheds and river systems in the Philippines. Aside from addressing disaster risk reduction and climate change adaptation, the resource information to be generated from this project will also be useful in providing the information requirements of various sectors in the country.	P1.6B	No budget release for 2014 because it was already given since 2011-2012.	UP TCAGP-UP Diliman, ASTI and PAGASA	Project 1. LIDAR and SAR Data Acquisition				
					- Acquired LIDAR data for: - Albay, Sorsogon - Masbate - Iloilo and Antique - Negros Occidental/ Hilabangan - Leyte / Samar - Dinagat & Siargao Is. - General Santos - Leyte – Southern Leyte and Biliran Bongquirogon Pagbangan	- LIDAR data - acquisition for 18 floodplains and 4 + rivers - Cover additional rivers	- LIDAR data acquired for 18 of 18 floodplains and 4 + rivers - SAR data acquired for all 18 watersheds - Covered additional rivers	100%	- Extended from May 20, 2015 - May 19, 2016 (see attached PCIEERD Management Team approval of the extension)

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(1)	(2)	(3)	(4)	(5)	(8)	(7)	(8)	(9)	(10)
3. Nationwide DREAM Program (3D LiDAR Mapping) DURATION: December 20, 2011 - December 19, 2013 (Extension Period: - Project 2: Dec. 20, 2013 - Sept. 19, 2014 - Project 3: Dec. 20, 2013 - Oct. 19, 2014 - Project 4: Dec. 20, 2013 - Dec. 19, 2014 - Project 5: Dec. 20, 2013 - Dec. 19, 2014)					Salug Bisay Cadacan 2 Himbangan Pandan - Samar, N. Samar Bugko Skaga Calbiga Sutat Catarmán Taft				
						Project 2: LiDAR and SAR Data Calibration and Validation			
					Digital Elevation Model (DEM): - 1 (Mindanao- Cotabato) - Completed the final reports for CDO, Mandulog, Iponan and Agno Rivers. Draft reports prepared for Pampanga, Angat, Agus, Bicol, Iligan, Panay, Jalaur, Magasawang tubig, Ilog Hilabangan, Compostela Valley/Davao, Buayan-Malungon, Hijo, Agusan, Tagoloan and Cagayan	- Ground validation of 18 of 18 major rivers and 6+ sites - Cross-section and profile of 18 sites - Train 14 HEIs - Cross-section and bathymetry of additional rivers	- Completed ground validation of 18 of 18 major rivers and 6+ sites - Completed cross-sectioning and profiling of 18 of 18 sites - Cross-sectioning and bathymetry of additional rivers	95%	- Extended from April 1, 2015 - May 31, 2016 (see attached PCIEERD Management Team approval of the extension)
						Project 3: Digital Elevation Models and Salient Features for Flood Modeling			
					- Initial processing of areas in addition to the 18 major river basins covers 29,420 sq km which include the following sites: • Nueva Ecija (699 sqkm) • Bataan/Zambales (2155 sq km) • CaLaBaRZon (3329 sqkm) • Ilocos/Abra (3912 sqkm) • La Union (3125 sqkm) • Albay (1373 sqkm) • Masbate (3060 sqkm) • Mindoro (2578 sqkm) • Aklan-Capiz (1,237 sqkm) • Iloilo/Antique (598 sqkm) • Negros (3,641 sqkm)	- DEM and Orthophotos for 18 rivers and 4 + sites - Feature extraction of 7 out of 18 floodplains - Pre-process LIDAR data	- DEM and Orthophotos completed for 18 rivers and 4+sites - Completed feature extraction of 18 out of 18 floodplains - Completed Attribution of 11 of 18 being - Pre-processing of newly acquired LIDAR data of additional rivers	92%	- Extended from March 20, 2015 - May 19, 2016 (see attached PCIEERD Management Team approval of the extension)
					Project 4: Integrating High Resolution Digital Elevation Models (DEMs) into GIS-based Flood Modelling				
					- Flood Models: • HEC-RAS = 13 (28/22 completed) • HEC-HMS = 9 (28/28 completed) • 2D = 10 (28/21 completed) - 20-30 meter-resolution flood maps were produced and distributed to LGUs/regions during the DOST roadshow "Iba na ang Panahon"	- Completed real time channel inundation models - Discharge model for flood forecasting	- Completed real time channel inundation models - Calibrated flood models for 18 of 18 major river basins and 4 additional rivers - Produced and automated 2D flood hazard maps of 18 + 4 major river basins except for the automation of Lucena and Infanta, which do not have sensors at present.	90%	- Extended from May 20, 2015 - May 19, 2016 (see attached PCIEERD Management Team approval of the extension) - Availability of sensors and high river flow are essential requirements of the project.

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					campaign - Calibration = 22/28		- 3D maps can be produced using a software for visualization - 53 forecast points with sensors distributed within the 18 major river basins & the 4 additional basins; - With more sensors deployed by NOAA, more forecast points are being validated / calibrated		
					Project 5: Training for LiDAR Acquisition and Flood Modeling				
					- Promotions and updates are available at 'DREAM Website: http://www.dream.upd.edu.ph - Finalized four (4) DREAM Training Manuals which is currently for copyright application - Organized and conducted a seminar on LIDAR Data Applications attended by representatives from Pangasinan, Pampanga, Tarlac and Camarines Sur, Nueva Ecija, and Bulacan - Organized and conducted a Flood Modeling and Mapping Training attended by representatives from eight (8) Higher Education Institutions (HEIs), two National Government Agencies - Participated in three (3) DOST Science for Safer Communities "Iba na ang Panahon regional event, where LIDAR-based maps were introduced and explained to the LGUs - Received the 2014 Geospatial World Excellence Award on Policy Implementation - Presented a 1-minute AVP - Provided management and administration trainings for the DREAM personnel - Conducted Workshop on specific LiDAR and High-Spectral Imaging Application	- Continuous training on the LiDAR data applications - Maintenance and updating of DREAM website	- Training of 15 Higher Education Institutes, LGUs, DOST Attached Agencies, NGAs and Private Sector; - DREAM website updated and maintained	100%	- Extended from April 1, 2015 - May 31, 2016 (see attached PCIEERD Management Team approval of the extension)

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(1)	(2)	(3)	(4)	(5)	(8)	(7)	(8)	(9)	(10)
4. Strategic Information and Communication DURATION: June 15, 2012 - June 14, 2014 (Extension Date: June 15, 2014 - Dec. 31, 2014)	The project aims to provide relevant and up-to-date information to the public regarding the NOAH Program.	P12.9M	No budget release for 2014 because the budget was already given since 2012.	DOST-Science and Technology Information Institute (DOST-STII)	<ul style="list-style-type: none"> - Conduct of IECs 1. DPWH Head Office 2. DLSU Dasma 3. National Convention of Phil Association of Microfinance 4. Seminar on Disaster Readiness, PUP Sta Mesa 5. Office of Civil Defense Region 1 Conference 6. Briefing for the American Chamber of Commerce of the Philippines and the Overseas Security Administration Council 7. Participated in the National S&T Week and Regional S&T Fairs 8. Far Eastern University 9. Pilot test of DRRM training course for public sector 			100%	The project concluded in December 2014.
5. Enhancing Philippine Landslide Hazard Maps with LIDAR and High Resolution Imageries DURATION: May 16, 2013 - May 15, 2014 (1st Extension: May 16, 2014 - Dec. 31, 2014 2nd Extension: March 2015- December 2015)	The project aims to enhance Philippine landslide susceptibility maps for all regions.	P57.4M	P13.8M (additional budget)	UP - National Institute of Geological Sciences (UP-NIGS)	<ul style="list-style-type: none"> - 36/36 landslide areas have already been field inventoried - 36/36 high resolution Shallow Landslide Maps were field validated - 33/33 high resolution Alluvial Fan Maps were field validated (Benguet, Catanduanes, & Ifugao do not have an alluvial fan) - 31/33 high resolution Debris Flow Maps were field validated (Benguet, Catanduanes, & Ifugao do not have a debris flow) - 36/36 high resolution Structurally Controlled Landslide Maps were field validated 	<ul style="list-style-type: none"> - Complete the inventory, simulation and validation of 36 priority provinces - Continuously monitor landslide susceptible areas 	<ul style="list-style-type: none"> - Completed inventory, simulation and validation of 36 priority provinces - Continuous monitoring of landslide susceptible areas 	100%	<ul style="list-style-type: none"> - Project concluded on 31 December 2015 - Awaiting Terminal Reports (Technical and Financial Reports)
6. Dynaslope & Senslope (Phase 2) DURATION: June 1, 2013 - May 31, 2015	The project aims to develop and deploy Early Warning System for Deep-Seated Catastrophic Landslides nationwide.	P172.3M	P23M (additional budget)	Philippine Volcanology and Seismology (PHIVOLCS)	Dynaslope: <ul style="list-style-type: none"> - 4 out of 6 seminar-trainings conducted - Provided weekly monitoring updates to communities and LGUs at the sites - Conducted event-based monitoring work and alert release for sites in Benguet and Iloilo (in relation to Habagat, and Typhoons Luis & Mario) 	Dynaslope: <ul style="list-style-type: none"> - Identify 40 sites for landslide sensor installation - Deploy 20 sensors - Conduct seminar - training to community monitors 	As of latest submitted Progress Report (Sept 2015) Dynaslope: <ul style="list-style-type: none"> - 39 out of 40 sites identified - 20 sensors deployed - 30 out of 40 seminar - training conducted to community monitors 	65%	<ul style="list-style-type: none"> - Project concluded on 31 December 2015 - Awaiting Terminal Reports (Technical and Financial Reports) - The accomplishment was only based on the September 2015 submission, hence it is less than 90% but will update you on its final

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(1)	(2)	(3)	(4)	(5)	(8)	(7)	(8)	(9)	(10)
					<p>Senslope:</p> <ul style="list-style-type: none"> - First batch of sensors already delivered. - Design and specifications done and ready for bidding (landslide sensors, piezometer sensor, data logger and telemetry system). Bid docs for the second batch on preparation 	<p>Senslope:</p> <ul style="list-style-type: none"> - Refine power circuits, sensors and packaging - Manufacture landslide sensor system, data loggers and piezometer readout board for 25 sites - Install 20 sensors onsite 	<p>Senslope:</p> <ul style="list-style-type: none"> - Refined power circuits, sensors, and packaging - Manufactured landslide sensor system, data loggers and piezometer readout board for 25 sites - 20 sensors installed onsite 		accomplishment as soon as the report has been submitted.
7. System to Identify, Quantify and Map the Storm Surge Threat to Philippine Coasts DURATION: September 1, 2013 - August 31, 2014 (1st Extension Date: Sept. 1, 2014 - Feb. 28, 2015 2nd Extension Date: March 2015 - December 2015)	The main objective of this project is to enhance the disaster-forecasting capabilities of PAGASA by beginning to generate detailed maps of storm surge and inundation susceptibilities. These maps will be used to warn coastal communities threatened by approaching typhoons.	P80M	P8.1M (additional budget)	PAGASA, UP National Institute of Geological Sciences (NIGS), UP Institute of Environmental Sciences and Meteorology (IESM), UP Marine Science Institute (MSI)	<ul style="list-style-type: none"> - Upgrading and updating of existing storm surge models resulted to automation of storm surge simulation using Japan Meteorological Agency (JMA) - 90% - 63 out of the 67 provinces were storm-surge mapped - 94% 	<ul style="list-style-type: none"> - Field validation of 42 provinces - Storm surge inundation maps of all coastal provinces in the Philippines 	<ul style="list-style-type: none"> - Field validated of 42 provinces - Produced storm surge inundation maps of all coastal provinces in the Philippines 	100%	<ul style="list-style-type: none"> - Project concluded on 31 December 2015 - Awaiting Terminal Reports (Technical and Financial Reports)
8. Weather Information-integration for System Enhancement (NOAH-WISE) DURATION: March 1, 2013 - Feb. 28, 2015	<ul style="list-style-type: none"> - The project aims to enhance PAGASA's numerical weather prediction models using High-Performance Computing - The project aims to integrate with ClimateX, FloodNet and other components of Project NOAH to improve weather and flood forecasting capabilities. 	P21.4M	P339K	Institute of Environmental Science & Meteorology	<ul style="list-style-type: none"> - 240% increase in spatial coverage for early detection of typhoons - 28% increase in temporal range (from 5 days to 7 days) - The output of NOAH WISE (7 day forecast is integrated in the NOAH Website for the use of General Public) - Increase in the number of Automatic Weather Station (AWS) that can used for Data Assimilation and Forecast Validation at a real time(from 200 in May 2013 to 1100 in November 2014) - Using 75% of the BlueGene/P, WISE is able to generate 7-day forecasts at 4-km resolution 4 times/day. 	<ul style="list-style-type: none"> - 7-day forecast at 4km spatial resolution covering the Philippine Area of Responsibility (PAR) - Public access to text outputs, images and weather animations (.gif) especially for researchers, NOAH components and PAGASA 	<ul style="list-style-type: none"> - 7-day forecast at 4km spatial resolution covering the Philippine Area of Responsibility (PAR); typhoon track and intensity - The text outputs, images and weather animations (.gif) are distributed through a public domain http://202.90.159.150/pub/wrf for the consumption of researchers, NOAH components and PAGASA. 	100%	The project concluded in February 2015.
9. Disaster Management using Web-GIS DURATION: May 16, 2013- May 15, 2014 (1st Extension Date: May 16, 2014 - Nov. 15, 2014; 2nd Extension Date: March 2015 - December 2015)	The project aims to provide robust visualization of geospatial data where the end-users can avail of near real-time high resolution hazards and disaster-related information as an important tool for decision-making.	P56.7M	P14.3M (additional budget)	UP - National Institute of Geological Sciences (UP-NIGS)	<ul style="list-style-type: none"> - Finalization of NOAH2.0 website - Launched the MOSES tablet at the PICC on June 30, 2014 during the "Iba na ang Panahon: Science for Safer Communities" regional campaign - Deployed the tablets in 	<ul style="list-style-type: none"> - Additional features for NOAH 2.0 website 	<ul style="list-style-type: none"> - NOAH 2.0 website additional features are toggle draw and distance and area measurement - Addition of WebSAFE, impact assessment tool which calculates the minimum needs of a particular municipality in 	100%	<ul style="list-style-type: none"> - Project concluded on 31 December 2015 - Awaiting Terminal Reports (Technical and Financial Reports)

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(1)	(2)	(3)	(4)	(5)	(8)	(7)	(8)	(9)	(10)
					Marikina to test the usability and integrity of the units		the event of a particular hazard		
10. Development of Hybrid Weather Monitoring System and Production of Weather and Rain Automated Stations (AWS) DURATION: January 1, 2012 - December 31, 2013	The project aims to provide timely data in key areas of the country to serve as input in models and other decision making tools.	P78.4M	No budget release for 2014 because the project is already completed.	Advanced Science and Technology Institute (ASTI)				100%	The project concluded in December 2013.

Prepared by:

fatmaneng
MS. TONY ROSE C. TUMANENG
SRS II - PCMD

[Signature]
ISIDRO V. QUERUBIN, JR.
Budget Officer

Approved by:

[Signature]
CARLOS PRIMOC DAVID, Ph.D.
Executive Director
Good job