



Republic of the Philippines  
Department of Environment and Natural Resources  
Visayas Avenue, Diliman, Quezon City  
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**MEMORANDUM**

**TO :** ALL DENR REGIONAL EXECUTIVE DIRECTORS

**THE BUREAU DIRECTORS**  
Forest Management Bureau  
Biodiversity Management Bureau  
Ecosystems Research and Development Bureau  
Mines and Geosciences Bureau

**THE SERVICE DIRECTORS**  
Climate Change Service  
Policy and Planning Service  
Knowledge and Information Systems Service

**FROM :** **THE UNDERSECRETARY**  
Finance, Information Systems and Climate Change and  
Head Secretariat, Task Force Build Back Better

**SUBJECT :** **REQUEST FOR PARTICIPANTS TO THE RAPID APPRAISAL  
TRAINING - FIRST STEP TO THE CONDUCT OF THE GREEN  
ASSESSMENT**

**DATE :** **29 SEPTEMBER 2022**

For FY 2023, the Department of Environment and Natural Resources will be rolling out the USAID SIBOL Activity - Green Assessment as one of its programs. It will be used to assess natural ecosystems and its services such as its condition, biodiversity, supply, and demand, etc., establish baseline data for different ecosystems, and formulate management recommendations for green resilience plans.

The green assessment consists of four (4) stages: 1) Rapid Appraisal, 2) Ground Validation Surveys, 3) Analysis and Interpretation, and 4) Green Resilience Planning. A series of workshops will be conducted to enhance the capacity of DENR employees through the updating of existing methodologies and the adoption of new ones for the department.

The rapid appraisal workshop will utilize Geographic Information System (GIS) and Remote Sensing (RS) technology to train employees of the department to properly generate and analyze satellite images along with primary and secondary data on land cover classification to identify areas of interest for the succeeding steps. Details are as follows:

Cluster	Luzon Cluster	Visayas - Mindanao Cluster
Date	14-18 November 2022	17 - 21 October 2022
Venue	Los Baños, Laguna	Cebu City, Cebu

<b>Regional Office Participants</b>	Region I Region II CAR Region III NCR IV-A IV-B Region V	Region VI Region VII Region VIII Region IX Region X Region XI Region XII Region XIII
<b>Bureaus/Services</b>	Forest Management Bureau Biodiversity Management Bureau Ecosystems Research and Development Bureau Mines and Geosciences Bureau Climate Change Service Policy and Planning Service (2) Knowledge and Information Systems Service (1 for Luzon Cluster)	
<b>Number of Participants</b>	3 participants per Office	

For the regional offices, may we request that one (1) planning officer and two (2) GIS specialists from the Conservation and Development and/or the Survey Mapping Division attend this activity. USAID SIBOL will be covering the expenses during the workshop proper. While travel expenses (i.e. airfare or land travel from and to their place of assignments) of your representatives shall be charged to your respective office.

Please fill up the attached registration form to confirm the attendance of participants on or before **October 10, 2022**. Should you have queries and concerns, you may also contact Ms. Raquel Smith C. Ortega ([rscortega@denr.gov.ph](mailto:rscortega@denr.gov.ph)) and For. JM Reboton ([jmnreboton@denr.gov.ph](mailto:jmnreboton@denr.gov.ph)) of the Climate Change Service at telephone number 02-8928-1194.

Please see attached concept note and draft Special Order for more detailed information on the activity.

  
**ATTY. ANALIZA BEBUELTA-TEH**

cc: Undersecretary for Legal, Administration, Human Resources and Legislative Affairs  
Undersecretary for Field Operations - Luzon, Visayas and Environment  
Undersecretary for Field Operations - Mindanao



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**SPECIAL ORDER**

No. 2022 - \_\_\_\_\_

**SUBJECT : AUTHORIZING THE ATTENDANCE OF BUREAU AND REGIONAL PARTICIPANTS TO THE RAPID APPRAISAL TRAINING - FIRST STEP TO THE CONDUCT OF THE GREEN ASSESSMENT**

In the interest of service for green resilience planning to improve the protection, conservation, and sustainable use of ecosystem and ecosystem services, the conduct of Rapid Appraisal Training - First Step of the Green Assessment is hereby authorized. The following personnel are hereby authorized to attend and actively participate in the training workshop:

<b>Cluster</b>	Luzon Cluster	Visayas - Mindanao Cluster
<b>Date</b>	14-18 November 2022	17 - 21 October 2022
<b>Venue</b>	Los Baños, Laguna	Cebu City
<b>Regional Office Participants</b>	Region I Region II CAR Region III NCR IV-A IV-B Region V	Region VI Region VII Region VIII Region IX Region X Region XI Region XII Region XIII
<b>Bureaus</b>	Forest Management Bureau Biodiversity Management Bureau Ecosystems Research and Development Bureau Mines and Geosciences Bureau Climate Change Service Policy and Planning Service (2) Knowledge and Information Systems Service (1 for Luzon Cluster)	
<b>Number of Participants</b>	3 participants per Office Regional Offices: One (1) planning officer Two (2) GIS specialists from the Conservation and Development (CDD) and/or the Survey Mapping Division (SMD)	

Attendance to the training workshop shall be limited to the above fully-vaccinated participants and subject to the IATF guidelines and observance of minimum health and safety protocols on CoVid-19.

All expenses to be incurred in relation to the activity including honoraria of the resource persons, food, and accommodation expenses will be covered by United States Agency for International Development Sustainable Interventions for Biodiversity, Oceans, and Landscape (USAID SIBOL). Travel expenses of representatives from and to their place of assignments and other allowable expenses shall be charged against respective office funds, subject to usual accounting and auditing rules and regulations.

As such, the Climate Change Service (CCS) shall take the lead in the coordination and preparation of the overall activity in collaboration with the USAID SIBOL of the training for green assessment of provinces.

The Director of the Climate Change Service is authorized to reschedule the above-mentioned event in case of conflict with other activities of the Department.

A report shall be submitted to the undersigned within fifteen (15) days after the completion of said activity.

This Order takes effect on the dates specified herein.

**ATTY. ERNESTO D. ADOBO, JR., CESO I**  
Undersecretary for Legal, Administration,  
Human Resource, and Legislative Affairs



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## **Training on conducting Green Assessment Stage I: Rapid Appraisal Green Assessment towards Green Recovery and Resilience**

**Date:** October 17 to 21, 2022 (Visayas-Mindanao Cluster); November 14 to 18, 2022 (Luzon Cluster)

**Time:** 08:00 AM

**Venue:** TBD

### **Background**

The Green Assessment Framework aims to assess typhoon-related damages to forests, biodiversity, and ecosystems. The framework consists of four stages. Stage 1 is conducting rapid appraisals by identifying any changes in forest surface cover and ecosystem assets. Stage 2 employs both centralized streams of data gathering on defined damage hotspots in order to widen the coverage of data capture. Stage 3 will analyze and visualize the information gathered from Stages 1 and 2 to enable assessment of the extent of damage and changes in land use. Finally, Stage 4 aims, with the cooperation of key stakeholders, to formulate management recommendations and plans for restoration and rehabilitation, and resilience planning.

This capacity-building activity will focus on conducting the first stage of the green assessment. The Rapid appraisal utilizes geographic information systems and remote sensing technologies for assessing ecosystems in the aftermath of the typhoon. This will involve examining two satellite images (pre and post disaster event images) to visualize vegetation indices and identify damage hotspots for ground validation surveys.

### **Objectives**

1. For participants to be familiarized on the green assessment framework;
2. For participants to advance their knowledge and utilization of remote sensing and GIS in conducting rapid appraisals for post-disaster scenarios;
3. For participants to enhance their skills on using open source software in executing satellite image processing and analysis; and
4. For participants to learn how to pinpoint damaged areas using processed satellite images.

**Pre-registration link - <https://forms.gle/xwbokhwsxoPr4DaF9>**

May we request that attendees complete the pre-registration prior to the activity so we can reserve their accommodations in advance! Participants must have a background on using GIS and other mapping programs.

### **Hardware requirement:**

Laptop, minimum i5 processor with at least 8GB RAM or Higher

### **Software requirement:**

QGIS version





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**Program of activities**

October 17 to 21, 2022 (Visayas-Mindanao Cluster); November 14 to 18, 2022 (Luzon Cluster)

Date	Topic	Duration	Resource Person
<i>Day 1</i>			
8:00 to 9:00 AM	Registration and arrival of participants		Secretariat (SIBOL, DENR CCS)
9:00 to 9:05 AM	Opening Prayer and National Anthem	5 mins	
9:05 to 9:10 AM	Opening Message	5 mins	Atty. Analiza Rebuelta-Teh, DENR Undersecretary for Finance, Information Systems, and Climate Change
9:10 to 9:20 AM	Welcome Remarks	10 mins	DENR Regional Executive Director for Region 7 (Visayas-Mindanao Cluster) and Region 4A (Luzon Cluster)
9:20 to 9:40 AM	Introductions from DENR CCS - Introduction of participants - Overview of activities	20 mins	DENR CCS
9:40 to 10:00	Introductions from SIBOL	20 mins	Dr. Ernesto Guiang SIBOL Chief of Party
10:00 to 10:15 AM	Coffee break	15 mins	
10:15 to 10:30 AM	Training overview, house rules, introduction of facilitators and expectation setting	15 mins	Ms. Jennica Paula Masigan HCVA Specialist, SIBOL
10:30 to 11:00 AM	Introduction to the Green Assessment Framework	30 mins	Dr. Oliver G. Coroza GST Lead
11:00 to 12:00 PM	<b>Presentation I: Review of Basic Remote Sensing concepts</b> <ul style="list-style-type: none"> <li>• Definition of terms</li> <li>• Sensors, software</li> <li>• Datasets and layers</li> </ul>	60 mins	Kristine Joy Andaya CCIPH GST Associate





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12:00 to 1:00 PM	Lunch	60 mins	
1:00 to 3:00 PM	<b>Presentation 2: Image Downloading and Processing</b> <ul style="list-style-type: none"> <li>• Satellite image download using Google Earth Engine</li> <li>• Processing satellite image in QGIS</li> <li>• Generate NDVI images</li> </ul>	120 mins	Kristine Joy Andaya CCIPH GST Associate  **Proctors and assistant facilitators will be assigned to the participants
3:00 to 3:15 PM			
3:15 - 5:00 PM	Activity 1. Continuation of the image processing and classification Reclassifying NDVI values into land cover values and Change detection using NDVI difference	105 minutes	Kristine Joy Andaya CCIPH GST Associate  **Proctors and assistant facilitators will be assigned to the participants
<i>Day 2</i>			
8:00 to 9:00 AM	Registration & Attendance		Secretariat
9:00 to 9:10 AM	Recap	10 mins	Participants
9:10 to 10:00	<b>Presentation 3: Image Analysis: Identifying regions of interest</b> <ul style="list-style-type: none"> <li>o Identifying reference points for validation</li> <li>o Perform stratified random sampling</li> <li>o On the region of interest</li> </ul>	50 mins	Kristine Joy Andaya CCIPH GST Associate  **Proctors and assistant facilitators will be assigned to the participants
10:00 to 10:15	Coffee Break	15 mins	
10:15 to 12:00 NN	<b>Presentation 4: Production of polygons from reference points</b> <ul style="list-style-type: none"> <li>o For land cover classification</li> <li>o For change detection classification</li> </ul>	60 mins	Kristine Joy Andaya CCIPH GST Associate  **Proctors and assistant facilitators will be assigned to the participants





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	<ul style="list-style-type: none"> <li>o Tasking for the exercise that will be conducted on the following days</li> <li>-Each group (region) will be designated one area of interest to work on. The groups will prepare reference points and polygons which will be used in Stage 2 (ground validation surveys).</li> </ul>		
12:00 NN to 1:00 PM	Lunch		
1:00 to 2:00 PM	<p><b>Presentation 5: Basic Mapping with layouting</b></p> <ul style="list-style-type: none"> <li>o Creating and exploring a basic map</li> <li>o Adding your first layers Lesson</li> <li>o Navigating the map canvas</li> <li>o Symbology</li> </ul>	60 mins	<p>Sheinna May Claro CCIPH GST Associate</p> <p><b>**Proctors and assistant facilitators will be assigned to the participants</b></p>
2:00 to 3:00 PM	<p><b>Presentation 5: Raster analysis</b></p> <ul style="list-style-type: none"> <li>o Working with Raster</li> <li>o Changing Raster Symbology</li> <li>o Terrain Analysis</li> </ul>	60 mins	<p>Kristine Joy Andaya CCIPH GST Associate</p> <p><b>**Proctors and assistant facilitators will be assigned to the participants</b></p>
3:00 to 3:15 PM	Coffee Break		
3:15 to 5:00 PM	<p>Activity 2: Preparation of outputs per group</p> <ul style="list-style-type: none"> <li>o Reference points maps</li> </ul>		<p>Kristine Joy Andaya CCIPH GST Associate</p> <p><b>**Proctors and assistant facilitators will be assigned to the participants</b></p>
<i>Day 3</i>			
8:00 to 9:00 AM	Registration & Attendance		Secretariat
9:00-9:10 AM	Recap	10 mins	Participants
9:10-12:00	Cont. of activity 2	180 mins	Participants







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	Coffee break at 10am		
12:00 NN to 1:00 PM	Lunch		
1:00 to 5:00 PM	Activity 3: Presentation of outputs per group  Coffee break at 3pm	240 mins	Dr. Oliver Coroza Kristine Joy Andaya
<i>Day 4</i>			
8:00 to 9:00	Registration and Attendance	30 mins	SIBOL Facilitators/Secretariat
9:30-10:00 AM	Recap	30 mins	Participants
10:00 to 12:00 PM	Activity 3: Preparation of output per group map o Reference points maps	120 mins	
12:00 NN to 1:00 PM	Lunch		
1:00 to 3:00 PM	Activity 4: Alternative sourcing of satellite imagery due to weather conditions and cloud presence	120 mins	Dr. Oliver G. Coroza Geospatial Team Lead  **Proctors and assistant facilitators will be assigned to the participants
3:00 to 3:15	Coffee break		
3:15 to 5:00 PM	Activity 5: Calculating other indices associated with vegetation either from spectral and microwave bands to detect presence of and change in vegetation cover	120 mins	Dr. Oliver G. Coroza Geospatial Team Lead  **Proctors and assistant facilitators will be assigned to the participants
<i>Day 5</i>			
8:00 to 9:00 AM	Registration & Attendance		Secretariat
9:00 to 9:10 AM	Recap	10 mins	Participants





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9:10 to 12:00 AM	Activity 3: Visualizing the indices to indicate change and pinpoint locations for ground-truthing  Coffee break at 10am	180 mins	Dr. Oliver G. Coroza Geospatial Team Lead  **Proctors and assistant facilitators will be assigned to the participants
12:00 NN to 1:00 PM	Lunch		
1:00 to 1:30	Post - evaluation form	30 mins	Participants
1:30 to 2:30	Ways forward - Green assessment adoption - post-training activities and work planning - preparation for stage 2 TOT	60 mins	DENR CCS
2:30 to 3:15 PM	Distribution of Certificate of Appearance and Certificate for Completion of Training	30 mins	DENR CCS
3:15 to 3:30 PM	Closing Remarks	15 mins	DENR CCS

