



Republic of the Philippines
Department of Environment and Natural Resources
BIODIVERSITY MANAGEMENT BUREAU
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APR 28 2023

MEMORANDUM

FOR : The Regional Executive Directors
DENR Regions 3, MIMAROPA, and 13

FROM : The Director
In concurrent capacity as Assistant Secretary for Policy,
Planning, and Foreign-Assisted and Special Projects

SUBJECT : **REQUEST FOR PARTICIPATION OF SELECTED PROTECTED AREA PERSONNEL TO THE TRAINING OF TRAINORS AND PILOT-TESTING OF THE EARTHRANGER IN SUPPORT TO THE STANDARDIZATION AND ENHANCEMENT OF BIODIVERSITY ASSESSMENT AND MONITORING TOOLS PHASE 2 ON 14-21 MAY 2023 IN THE PROVINCE OF ZAMBALES**

This refers to the ongoing standardization and enhancement of biodiversity assessment and monitoring tools being implemented by the Biodiversity Management Bureau through the Sustainable Interventions for Biodiversity, Oceans and Landscapes (SIBOL) Project. The standardization and enhancement supports the provisions of the Implementing Rules and Regulations of the National Integrated Protected Areas System (NIPAS) Act, as amended, that sound resources assessment shall be used as one of the bases for the review and updating of protected area management plans.

In October to December 2021, the SIBOL Project initiated the standardization of the assessment and monitoring tools used by the BMB and Forest Management Bureau, with the goal of developing an automated and interoperable system to improve the currently used tools. The output will serve as basis for policy recommendation to rationalize the tools used in biodiversity resources assessment and monitoring, prevent duplication of efforts and resources allocation, and aid in protection and law enforcement.

Phase I activities focused on the identification of data points being captured by the various assessment and monitoring systems across thematic areas. For BMB, the assessment and monitoring tools reviewed were the Biodiversity Assessment and Monitoring System, Biodiversity Monitoring System, Illegal Wildlife Trade, Priority Species Monitoring Program, and Asian Waterbird Census. For FMB, the Lawin Forest and Biodiversity Protection System was reviewed. Analysis of the results revealed the similarities and differences of data captured by each assessment and monitoring tool, challenges and gaps in the applicability of the tools in the field, and possible solutions



UNITED NATIONS DECADE ON
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RESTORATION**
2021-2030

to address these gaps. Based on the results of the Phase I activities, Phase II will focus on using an automated data capturing tool (EarthRanger) to collect the core datasets common in each existing assessment and monitoring tool, and on field testing the tool in selected pilot sites to further improve its system and utility.

To operationalize the Phase II activities, the BMB and the SIBOL Project intend to conduct a Training of Trainors and Pilot Testing of the automated data capturing tool (EarthRanger) on 14-21 May 2023 in the Province of Zambales. The conduct of the Training will also serve as input to the proposed establishment of the Protected Area Academy which is also being undertaken by the BMB through the SIBOL Project.

In this regard, may we request the participation of the following protected area personnel to the said Training of Trainors:

Region	Protected Area	Participants
3	Masinloc and Oyon Bay Protected Landscape	<ul style="list-style-type: none"> Protected Area Superintendent or Assistant Protected Area Superintendent 2 Technical Staff with background in geospatial analysis 1 Protected Area Ranger
	Bataan Natural Park	<ul style="list-style-type: none"> Protected Area Superintendent or Assistant Protected Area Superintendent 2 Technical Staff with background in geospatial analysis 1 Protected Area Ranger
MIMAROPA	Mt. Mantalingahan Protected Landscape	<ul style="list-style-type: none"> Protected Area Superintendent or Assistant Protected Area Superintendent 2 Technical Staff with background in geospatial analysis 1 Protected Area Ranger
	Puerto Princesa Subterranean River National Park	<ul style="list-style-type: none"> Protected Area Superintendent or Assistant Protected Area Superintendent 2 Technical Staff with background in geospatial analysis 1 Protected Area Ranger
13	Siargao Island Protected Landscape	<ul style="list-style-type: none"> Protected Area Superintendent or Assistant Protected Area Superintendent 2 Technical Staff with background in geospatial analysis 1 Protected Area Ranger

We will also highly appreciate it if the Regional Executive Director of DENR Region 3 and/or the PENR Officer of Zambales can welcome the participants during the opening program of the Training on 15 May 2023.

The above protected areas, with the exception of Bataan Natural Park, are implementation sites of the SIBOL Project and are expected to continue pilot-testing the automated data capture system as part of project implementation. The conduct of the Training will also serve as input to the proposed establishment of the Protected Area Academy which is also being undertaken by the BMB through the SIBOL Project.

Attached is the Activity Design and Program of Activities for the Training of Trainers, along with the draft Special Order.

For consideration.


MARCIAL C. AMARO, JR.



Republic of the Philippines
Department of Environment and Natural Resources
BIODIVERSITY MANAGEMENT BUREAU



BMB202302022

ACTIVITY DESIGN	
Activity Name	Training of Trainors and Pilot-Testing of the EarthRanger in Support to the Standardization and Enhancement of Biodiversity Assessment and Monitoring Tools Phase 2
Date and Venue	14-21 May 2023 Region 3, to be announced
Background/ Rationale	<p>The Implementing Rules and Regulations of the National Integrated Protected Areas System (NIPAS) Act of 1992, as amended by the Expanded NIPAS Act of 2018, provides that sound resources assessment shall be used as one of the bases for the review and updating of protected area management plans. At present, Protected Area Management Offices use the Biodiversity Monitoring System (BMS) adopted in 2000, and the Biodiversity Assessment and Monitoring System (BAMS) adopted in 2016 in the assessment and monitoring of biological resources within protected areas. The BAMS provides baseline information on the biodiversity of various ecosystems in protected areas, which are monitored in the long-term (3-year interval). The BMS, on the other hand, aims to identify the trends in biodiversity resources and their uses at a shorter interval (at least twice a year).</p> <p>In October to December 2021, the SIBOL Project initiated the standardization of the assessment and monitoring tools used by the Biodiversity Management Bureau and Forest Management Bureau, with the goal of developing an automated and interoperable system to improve the currently used tools. The output will serve as basis for policy recommendation to rationalize the tools used in biodiversity resources assessment and monitoring, prevent duplication of efforts and resources allocation, and aid in protection and law enforcement.</p> <p>Phase I activities focused on the identification of data points being captured by the various assessment and monitoring systems across thematic areas. For BMB, the assessment and monitoring tools reviewed were the Biodiversity Assessment and Monitoring System, Biodiversity Monitoring System, Illegal Wildlife Trade, Priority Species Monitoring Program, and Asian Waterbird Census. For FMB, the Lawin Forest and Biodiversity Protection System was reviewed. Analysis of the results revealed the similarities and differences of data captured by each assessment and monitoring tool, challenges and gaps in the applicability of the tools in the field, and possible solutions to address these gaps. Based on the results of the Phase I activities, Phase II will focus on using an automated data capturing tool (EarthRanger) to collect the core datasets</p>


	<p>common in each existing assessment and monitoring tool, and on field testing the tool in selected pilot sites to further improve its system and utility.</p> <p>To operationalize the Phase II activities, the BMB and the SIBOL Project intend to conduct a Training of Trainors and Pilot Testing of the automated data capturing tool on 14-21 May 2023 in Region 3. The conduct of the Training will also serve as input to the proposed establishment of the Protected Area Academy which is also being undertaken by the BMB through the SIBOL Project.</p>
Objectives	<p>The Training of Trainors and Pilot Testing aims to:</p> <ol style="list-style-type: none"> 1. Capacitate DENR and Protected Area Management Office Personnel on: <ol style="list-style-type: none"> a. use of standardized data capture using up-to-date conservation technology; b. managing captured data in EarthRanger; and 2. Field test the automated data capture technology and the standardized data model in selected pilot sites. 3. Gather feedback which will serve as input to the proposed establishment of a Protected Area Academy.
Expected outputs	<ol style="list-style-type: none"> 1. Data model for capturing data of interest; 2. Capacitated DENR and PAMO personnel; 3. Feedback on the use of automated data capture tool; and 4. Proceedings of the Workshop
Participants	<ol style="list-style-type: none"> 1. BMB technical personnel from NPD, BPKMD, CAWED, CMD and WRD 2. Protected Area Superintendent or Assistant PASu, 2 Technical Staff, and 1 PA Ranger from: <ol style="list-style-type: none"> a. Masinloc and Oyon Bay Protected Landscape and Seacape b. Mt. Mantalingahan Protected Landscape c. Puerto Princesa Subterranean River National Park d. Siargao Island Protected Landscape and Seascape e. Bataan National Park 3. Facilitators from SIBOL-Strategic Approach 1
Mechanics	<p>The first part of the Training of Trainors will be held in a classroom style setting. Personnel from the SIBOL Project will facilitate the training. At the start of the Training, a pre-evaluation survey will be conducted to gauge the participants' knowledge on biodiversity assessment and monitoring. A recapitulation on the use of BAMS and BMS will be presented, followed by the introduction of the EarthRanger to the participants. This will be followed by the Workshop on the</p>

	<p>setting up of the EarthRanger Mobile Application, simulated data capture, and data visualization.</p> <p>A practicum will be held on Day 4 and Day 5 at the Masinloc and Oyon Bay Protected Landscape and Seascape and adjacent forests. Feedback on user experience of the tool will be gathered. A monitoring plan on the field testing of the tool at each site will also be developed. These will be used as basis for the improvement of the system prior to its further testing in other protected areas and subsequent adoption.</p>
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Prepared by:

MERIDEN E. MARANAN
Chief
National Parks Division

Endorsed by:


RANDY C. MABANA
Head
Human Resources Development Unit

Approved:

MARCIAL C. AMARO, JR.
Director
In concurrent capacity as Assistant Secretary
for Policy, Planning and Foreign-Assisted
and Special Projects

**TRAINING OF TRAINORS AND PILOT-TESTING OF THE EARTHRANGER IN
SUPPORT TO THE STANDARDIZATION AND ENHANCEMENT OF
BIODIVERSITY ASSESSMENT AND MONITORING TOOLS PHASE 2**

14-21 May 2023

Zambales

PROGRAM OF ACTIVITIES

Time	Topic/Activity	Responsible Person
14 May 2023 (Sunday), Day 0 – Arrival of Participants		
3:00 PM onwards	Check-in and Registration	All participants
5:00-6:00 PM	Orientation and Reminders	Facilitators and participants
	Pre-evaluation	
6:00 PM	Dinner	
15 May 2023 (Monday), Day 1		
8:00-8:30 AM	Technical set-up, audio, video and WiFi checks	Facilitators
8:30-9:00 AM	Registration	
9:00-9:15 AM	Opening Program <ul style="list-style-type: none"> ▪ Prayer ▪ National Hymn ▪ Introduction of Participants 	All participants
9:15-9:30 AM	Welcome Remarks	RED Paquito T. Moreno, Jr., CESO III DENR Region 3 PENRO Marife L. Castillo PENRO Zambales
9:30-9:45 AM	Opening Message	ASec. Marcial C. Amaro, Jr. BMB Director, in concurrent capacity as Asst. Secretary for Policy, Planning, and Foreign-Assisted and Special Projects
9:45-10:00 AM	Levelling-off and expectation setting Group Photo	
10:00 AM-12:00 NN	Revisiting BAMS and BMS <ul style="list-style-type: none"> ▪ DAO/TB ▪ Salient features ▪ Objectives and purpose ▪ Current status of implementation and usefulness of the system 	Daniel S. Garino, Jr. BMB-NPD

Time	Topic/Activity	Responsible Person
	<ul style="list-style-type: none"> Local context, reflections, and lessons learned on the implementation; its relevance to PA management 	
12:00 NN-1:00 PM	Lunch	
1:00-2:00 PM	Data Standardization Background (1hr) Transitioning from Paper to Digital Solutions <ul style="list-style-type: none"> Defining the conservation area Demonstrate the similarities and difference Used case scenarios 	SIBOL Resource Person
2:00-3:00 PM	Navigating the E-BMS and E-BAMS (1hr)	SIBOL Resource Person
3:00-4:00 PM	Introduction to EarthRanger For Mentors: <ul style="list-style-type: none"> Accounts Set-up on EarthRanger Dashboard Walkthrough and Exercise: EarthRanger Dashboard Accounts Set-up on EarthRanger Mobile 	Beatrice Hipolito SIBOL-SA1 SIBOL Facilitators Identified Mentors
4:00-4:30 PM	Summary Reminders for Day 2 Group Photo	
End of Day 1		
16 May 2023 (Tuesday), Day 2		
8:00-8:30 AM	Tech set-up, audio, video and WiFi checks, registration	
8:30-8:45 AM	Recap	
8:45-9:00 AM	Introduction to EarthRanger: History, uses, features and process	Beatrice Hipolito SIBOL-SA1
9:00-9:45 AM	Accounts Set-up on EarthRanger Mobile (for PA Rangers)	SIBOL Facilitators and Mentors
9:45-11:45 AM	Walkthrough and Exercise: EarthRanger Mobile <ul style="list-style-type: none"> Classroom and Field Exercise 	
11:45 AM-12:00 NN	Data Visualization: Earth Ranger Dashboard	Beatrice Hipolito SIBOL-SA1

Time	Topic/Activity	Responsible Person
12:00 NN-1:00 PM	Lunch	
1:00 PM-4:00 PM	Live walkthrough of E-BAMS (3hrs) <ul style="list-style-type: none"> ▪ Interface ▪ Methods and techniques 	All participants
4:00-4:30 PM	Summary Reminders for Day 3 Group Photo	
End of Day 2		
17 May 2023 (Wednesday), Day 3		
8:00-8:30 AM	Tech set-up, audio, video and WiFi checks, registration Preparation for Field Demo	Facilitators
8:30-8:45 AM	Recap	Facilitators
8:45 AM-12:00 NN	Live walkthrough of E-BMS (2hrs) <ul style="list-style-type: none"> ▪ Interface ▪ Methods and techniques 	Facilitators
12:00 NN-1:00 PM	Lunch	
1:00 PM-3:00 PM	Hands-on demo: Hands-on Practicum	Facilitators
3:00-4:00 PM	Preparation for field practicum <ul style="list-style-type: none"> ▪ Group Assignments ▪ Logistics 	Facilitators
4:00-4:30 PM	Summary Reminders for Day 4 Group Photo	
End of Day 3		
18 May 2023 (Thursday), Day 4		
5:30-6:00 AM	Assembly	All participants
6:00-7:00 AM	Travel to field site	
7:00 AM-2:00 PM	Field practicum	
2:00-3:00 PM	Travel back to venue	
3:00-4:00 PM	Summary Reminders for Day 5 Group Photo	
End of Day 4		
19 May 2023 (Friday), Day 5		
5:30-6:00 AM	Assembly	All participants
6:00-7:00 AM	Travel to field site	
7:00 AM-2:00 PM	Field practicum	
2:00-3:00 PM	Travel back to venue	
3:00-4:00 PM	Summary Reminders for Day 5 Group Photo	
End of Day 5		
20 May 2023 (Saturday), Day 6		

Time	Topic/Activity	Responsible Person
8:00-8:30 AM	Tech set-up, audio, video and WiFi checks, registration	
8:30-9:30 AM	Group Presentations <ul style="list-style-type: none"> ▪ Gallery viewing of results ▪ Sharing of experiences in using the tech-based data collection during the pilot-test 	All participants (Mentors and Rangers)
9:30-10:30 AM	Feedbacking	Facilitators and Mentors
10:30 AM-12:00 NN	Monitoring Plan Formulation	All participants
12:00 NN-1:00 PM	Lunch	
1:00-1:15 PM	Post-evaluation survey	All participants
1:15-2:00 PM	Calibration	Facilitators and Mentors BMB and SIBOL
End of Day 6		
21 May 2023 (Sunday), Day 7		
7:00-8:00 AM	Breakfast	
8:00 AM	Travel back to Metro Manila	

SPECIAL ORDER

No. 2023 - _____

SUBJECT : AUTHORIZING THE CONDUCT OF THE TRAINING OF TRAINORS AND PILOT-TESTING OF THE EARTHRANGER IN SUPPORT TO THE STANDARDIZATION AND ENHANCEMENT OF BIODIVERSITY ASSESSMENT AND MONITORING TOOLS PHASE 2 ON 14-21 MAY 2023 IN THE PROVINCE OF ZAMBALES

In the interest of the service and to rationalize and improve the processes on the assessment and monitoring of biodiversity, the Training of Trainors and Pilot-Testing of the EarthRanger in Support to the Standardization and Enhancement of Assessment and Monitoring Tools Phase 2: Systems Upgrade and Set-Up is hereby authorized to be conducted on 14-21 May 2023 in the Province of Zambales at a venue to be announced later.

The participation of the following personnel from the Biodiversity Management Bureau, DENR Field Offices, and Protected Area Management Offices is hereby authorized:

Biodiversity Management Bureau

1. Meriden E. Maranan, NPD
2. Francisco B. Feliciano, NPD
3. Daniel S. Garino Jr., NPD
4. Reneo B. Vicente, NPD
5. Juliana A. Balogo, NPD
6. Morshid C. Dimaporo, NPD
7. Ramon Lorenzo Reyes, NPD
8. Elpidio B. Gelera Jr., NPD
9. John Alerta, BPKMD
10. Michelle Aplan, BPKMD
11. Selected representatives each from the CAWED, CMD, and WRD (2 representatives each)

Masinloc and Oyon Bay Protected Landscape and Seascape

1. Protected Area Superintendent or Assistant Protected Area Superintendent
2. Technical Staff with background in geospatial analysis (2)
3. Protected Area Ranger (1)

Mt. Mantalingahan Protected Landscape

1. Protected Area Superintendent or Assistant Protected Area Superintendent
2. Technical Staff with background in geospatial analysis (2)
3. Protected Area Ranger (1)

Siargao Island Protected Landscape and Seascape

1. Protected Area Superintendent or Assistant Protected Area Superintendent
2. Technical Staff with background in geospatial analysis (2)
3. Protected Area Ranger (1)

Puerto Princesa Subterranean River National Park

1. Protected Area Superintendent or Assistant Protected Area Superintendent
2. Technical Staff with background in geospatial analysis (2)
3. Protected Area Ranger (1)

Bataan Natural Park

1. Protected Area Superintendent or Assistant Protected Area Superintendent
2. Technical Staff with background in geospatial analysis (2)
3. Protected Area Ranger (1)

Personnel from the Sustainable Interventions for Biodiversity, Oceans and Landscapes (SIBOL) – Strategic Approach 1, as well as SIBOL SA1 focal persons for MOBPLS, PPSRNP, MMPL, and SIPLAS shall be invited as facilitators and Resource Persons for the Trainors' Training.

Expenses for food, venue, and accommodation that will be incurred during the activity shall be charged to BMB funds, while airfare and other traveling expenses of the DENR participants shall be charged against the funds of their respective offices, subject to the usual accounting and auditing rules and regulations. Expenses for transport vehicles to ferry the participants from the BMB to the venue and vice versa, as well as mobilization within Region 3, shall be charged against the funds of the SIBOL Project. Expenses for supplies and materials shall be co-funded by the BMB and SIBOL Project.

The BMB Director is authorized to change the date and venue of the Trainors' Training in case of conflict and unforeseen circumstances. The BMB shall likewise submit to this Office an accomplishment report fifteen (15) days after the activity.

This Order takes effect on the dates specified herein.

AUGUSTO D. DELA PEÑA
Undersecretary for Organizational
Transformation and Human Resources