



Republic of the Philippines  
Department of Environment and Natural Resources  
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JUL 21 2021

**DENR SPECIAL ORDER**

NO. 2021 – 388

**SUBJECT : AUTHORIZING THE CONDUCT OF WORKSHOP ON THE  
INTEGRATION AND STANDARDIZATION OF GEOSPATIAL  
DATASETS FOR THE FORESTRY SECTOR ON JULY 27, 2021  
VIA ZOOM MEETING PLATFORM**

In the interest of the service and to strengthen the Department's initiatives in the effective protection, development and conservation of the country's remaining forest resources, forestlands, and watersheds, the conduct of the **Workshop on the Integration and Standardization of Geospatial Dataset for Forestry Sector** to be held on **July 27, 2021, via Zoom Meeting Platform**, is hereby authorized.

The following officials and personnel from the Field Offices are authorized to attend and participate:

**NCR**

Albina L. Pineda	Chief, Planning Management Division
Aida E. Esguerra	Chief, Conservation and Development Division
Orly T. Cariazo	Chief, Enforcement Division
Lina L. Mirandilla	Chief, Surveys and Mapping Division
Alvin Joseph G. Constantino	Chief, Licenses, Patents and Deeds Division
Jonathan Lambiquit	Regional GIS Technical Staff

**CAR**

Rosita Y. Apilis	Chief, Planning Management Division
Julius K. Cawilan	Chief, Conservation and Development Division
Atty. Charine Hanako Abalos	Chief, Enforcement Division
Benjamin A. Ventura	Chief, Surveys and Mapping Division
Maria. Rowena Caccam	Chief, Licenses, Patents and Deeds Division
Cirilo Gali	Regional GIS Technical Staff

**Region I**

Engr. Cezar Manuel A. Cabansag	Chief, Planning Management Division
Ms. Barbara M. Pernia	Chief, Conservation and Development Division
Atty. Arlyn Katherine C. Buduhan	Chief, Enforcement Division
Engr. Narciso Aragon	Chief, Surveys and Mapping Division
Engr. Noriel Nisperos	Chief, Licenses, Patents and Deeds Division
Edwin M. Dilim	Regional GIS Technical Staff

**Region II**

Pamela E. De Asis	Chief, Planning Management Division
For. Enrique Q. Pasion	Chief, Conservation and Development Division
For. Joel S. Daquioag	Chief, Enforcement Division
Engr. Zelda A. Vasquez	Chief, Surveys and Mapping Division

Engr. Eliseo D. Mabasa  
Arnold A. Batung

Chief, Licenses, Patents and Deeds Division  
Regional GIS Technical Staff

### **Region III**

Judelyn C. Francisco  
Minerva J. Martinez  
Atty. Armando Preclaro  
Engr. Juan P. Fernandez, Jr.  
Ricky J. Hernandez  
Emmanuel Penson

Chief, Planning Management Division  
Chief, Conservation and Development Division  
Chief, Enforcement Division  
Chief, Surveys and Mapping Division  
Chief, Licenses, Patents and Deeds Division  
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### **CALABARZON**

For. Mailene M. Gecolea-Laviña  
For. Ramil J. Gutierrez  
For. Oliver B. Viado  
Engr. Edgar S. Barraca  
Engr. Olivia G. Bejo  
Marvin Anghad

Chief, Planning Management Division  
Chief, Conservation and Development Division  
Chief, Enforcement Division  
Chief, Surveys and Mapping Division  
Chief, Licenses, Patents and Deeds Division  
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### **MIMAROPA**

Marilyn R. Limpiada  
Consuelo M. Matundan  
Lino M. Dimapilis  
Roman G. Legaspi  
Cesar P. Odi  
O'soniel Moises Tuddao

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Chief, Enforcement Division  
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Chief, Licenses, Patents and Deeds Division  
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### **Region V**

Ma. Anna P. Eleazar  
Marlene M. Francia  
Armando A. Omolida  
Josie A. Columna  
Ferdinand L. Baltazar  
Rene M. Manzanades

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Chief, Enforcement Division  
Chief, Surveys and Mapping Division  
Chief, Licenses, Patents and Deeds Division  
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### **Region VI**

Edna B. Locsin  
Danilo L. Lorilla  
June Melissa C. Garol  
Meliton B. Solas  
Elizur G. Militar  
Efren B. Villanueva

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Chief, Enforcement Division  
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### **Region VII**

Dr. Eddie E. Llamedo  
For. Lutherian T. Hernando  
For. Jimmy A. Panebio  
Engr. Emiliano S. Hormachuelos  
For. Ma. Clea A. Arceño

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Chief, Enforcement Division  
Chief, Surveys and Mapping Division  
Chief, Licenses, Patents and Deeds Division

Dionde C. Clarin

Regional GIS Technical Staff

### **Region VIII**

Maria Teresa N. Patindol  
Marissa N. Solite  
Allen S. Cebuano  
Ramon S. Unay  
Valire Jess D. Abar  
Dennis Lumagbas

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Chief, Enforcement Division  
Chief, Surveys and Mapping Division  
Chief, Licenses, Patents and Deeds Division  
Regional GIS Technical Staff

### **Region IX**

Dante A. Rojas  
Neneth T. Ordoño  
Cidur S. Julsadjiri  
Ramon E. Azcarraga  
Arlene E. Gabayno  
Cyrus B. Bayaw

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Chief, Enforcement Division  
Chief, Surveys and Mapping Division  
Chief, Licenses, Patents and Deeds Division  
Regional GIS Technical Staff

### **Region X**

Mabel Gemma Abad Ravanera  
Lida Sibug Bagonoc  
Sarah Parroco Chacon  
Isidro Joseph Jabla  
Dario Palma Barbarona  
Redilyn Flores

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Chief, Conservation and Development Division  
Chief, Enforcement Division  
Chief, Surveys and Mapping Division  
Chief, Licenses, Patents and Deeds Division  
Regional GIS Technical Staff

### **Region XI**

Luningning M. Dalayon  
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Raul M. Tambilawan  
Engr. Isidro P. Guarra  
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John Wyn C. Maruhom

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Chief, Conservation and Development Division  
Chief, Enforcement Division  
Chief, Surveys and Mapping Division  
Chief, Licenses, Patents and Deeds Division  
Regional GIS Technical Staff

### **Region XII**

Vicente Y. Curtiz  
Ali M. Hadjinasser, Ph.D.  
Dirie P. Macabaning  
Francisco C. Mancera  
Emily B. Ampatuan  
Gabriel M. Baute

Chief, Planning Management Division  
Chief, Conservation and Development Division  
Chief, Enforcement Division  
Chief, Surveys and Mapping Division  
Chief, Licenses, Patents and Deeds Division  
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### **CARAGA**

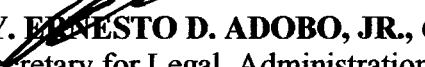
Antonieta A. Jurado  
Nilda G. Ebron  
Modesto U. Lagumbay Jr.  
Juliet B. Ilogon  
Mila M. Garcia  
Remar Baliscas

Chief, Planning Management Division  
Chief, Conservation and Development Division  
Chief, Enforcement Division  
Chief, Surveys and Mapping Division  
Chief, Licenses, Patents and Deeds Division  
Regional GIS Technical Staff

The Forest Management Bureau (FMB) shall facilitate the conduct of this activity and serve as the Secretariat. All expenses to be incurred in the conduct of the said workshop shall be charged against respective office funds, subject to the usual accounting and auditing rules and regulations. A report shall be submitted to the undersigned within the fifteen (15) days after the conduct of the said activity.

The FMB Director is authorized to reschedule the activity in case of conflict with other DENR activities.

This Order shall take effect on the date specified herein.

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



## WORKSHOP ON THE INTEGRATION AND STANDARDIZATION OF GEOSPATIAL DATASETS FOR THE FORESTRY SECTOR

### Rationale

In 2012, the Forest Management Bureau (FMB) adopted the use of modern technologies such as Geographic Information System (GIS) and Remote Sensing in its policies and guidelines to effectively protect, develop, and conserve the country's remaining forest resources, forestlands, and watersheds.

Geographic Information System (GIS) refers to the framework for gathering, managing, and analyzing spatial data to generate information, visualize patterns which can be used as a powerful tool for better planning and decision making. Modern mapping technologies provide cost-efficient spatial analysis of forest resources, with enhanced levels of accuracy and timeliness. Remote Sensing, on the other hand, is the science of the acquisition of information about an object or phenomenon from a distance. It is the process of detecting and monitoring the physical characteristics of an area by measuring its reflected and emitted radiation typically from aircraft or satellites.

Since then, the Bureau has provided technical guidance to the field offices on the standardization of forestry spatial datasets in the mapping and monitoring of forestry sector programs and projects such as the Enhanced National Greening Program (ENGP) and issuance of tenurial instruments. **However, the application of GIS in the forestry sector has yet to reach its full potential in addressing challenges during planning and program implementation. Despite all the advantages of GIS in forest management, it is still being limited by the issues on data availability and quality particularly on data collection and analysis.**

Hence, it is necessary to conduct the integration and standardization of geospatial datasets for the Forestry Sector. This is designed to maximize the application of GIS in the forestry sector by transforming selected compliance and monitoring reports into spatial datasets such as but not limited to forest inventory, potential investment areas, location of Wood Processing Plants (WPP), tree replacement areas, construction of Small Water Impounding Structure (SWIS), Lawin patrol data, location of log apprehension, and forest fire incidence.

This may be done through spatial modelling and can be applied as a tool in holistic forestry planning, decision making, and allocation of forest resources. The integration of these spatial datasets can be further analysed to address policy gaps/issues, specifically on the following:

1. Recording and mapping identified tree replacement areas, existing urban green spaces, inventory of structures within forestlands, mining activities, among others;
2. Improvement in the spatial analysis of forestry-related reports and data in terms of timber volume harvested from tree cutting permits, management plans, and assessment of potential hazards such as forest fire incidences and forest-related diseases; and
3. Keep track of mined-out areas as well as the status of the- progressive rehabilitation efforts, CSRs and replacement plantings of mining and energy projects.

**Objective**

This workshop aims to recommend guidelines to address the above-mentioned policy gaps/issues. It also aims to capture, design, manage and analyze forestry-related reports and accomplishments to be used in the development of a Forestry Geospatial Information System in support of the DENR One Control Map. Further, these spatial datasets will be integrated for the generation of thematic maps for holistic planning.

**Schedule of Activities**

The workshop will be held virtually, following the safety and health protocols issued by the Inter-Agency Task Force for COVID-19. The tentative schedule of the activities are as follows:

TENTATIVE DATE	ACTIVITY	EXPECTED OUTPUTS
June 16, 2021 (Wed)	First Phase: Workshop with FMB Executive Committee on the Proposed Forestry Geospatial Datasets	Initial list of proposed forestry geospatial datasets
July 27, 2021 (Tues)	Second Phase: Consultation Workshop with DENR Field Offices on the Proposed Forestry Geospatial Datasets Workshop	Integrated list of forestry geospatial datasets and thematic maps
August 2021	Presentation of the results of the workshop to the FMB Director	Draft Technical Bulletin on forestry geospatial datasets

**Participants**

The workshop shall consist of two phases of consultation on the standardization and adoption of forestry geospatial dataset standards. Participants for the said activities are the following:

**First Phase:**

- FMB Director
- FMB EXECOM
- FPSS Staff (2)
- KISS Staff (2)
- FES Staff (1)
- All FGDIS Staff

**Second Phase**

- Forest Management Bureau
  - Chief, FPPKMD
  - Chief, FPPKMD-FGDIS
  - OIC, RFRS-FRCD
  - Representative/s per Technical Division
  - All FGDIS Staff

DENR Field Offices

- Chief, Planning and Management Division
- Representative, Conservation and Development Division
- Representative, Enforcement Division
- Representative, Surveys and Mapping Division
- Representative, License, Patents, and Deeds Division
- Representative, Regional GIS technical staff

Budgetary Requirements

Food, communication allowances, and other related expenses to be incurred in the conduct of said workshop shall be charged against FMB Funds, subject to the usual accounting and auditing rules and regulations.

Tentative Program (July 27, 2021)

TIME	ACTIVITY	RESPONSIBLE PERSON
8:00 – 9:00	Opening Remarks	For. Marcial C. Amaro, Jr., CESO III <i>Assistant Secretary for Policy, Planning, and Foreign Assisted and Special Projects, and FMB Director, in concurrent capacity</i>
	Direction Setting and Workshop Overview	For. Larlyn Faith C. Aggabao <i>Chief, FPPKMD – FGDIS</i>
9:00 – 11:00	Presentation of Proposed Forestry Geospatial Datasets and Thematic Maps	FGDIS
11:00 – 12:00	Open Forum	
12:00 – 1:00	LUNCH BREAK	
1:00 – 3:00	Continuation: Open Forum	
3:00 – 3:40	Summary of Agreements	FGDIS
3:40 – 3:50	Way Forward	For. Isabelita V. Austria <i>Chief, FPPKMD</i>
3:50 – 4:00	Closing Remarks	For. Edna D. Nuestro <i>OIC, Assistant Director</i>