



Republic of the Philippines  
Department of Environment and Natural Resources

**FOREST MANAGEMENT BUREAU**

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**MEMORANDUM**

FOR : All Regional Executive Directors

FROM : The OIC Assistant Secretary for Field Operations – Western Mindanao and Director, in concurrent capacity

SUBJECT : **POLICY CONSULTATION ON THE DRAFT ADMINISTRATIVE ORDERS ON THE GUIDELINES FOR THE INSTALLATION AND USE OF STATIONARY WATERSHED MONITORING INSTRUMENTS AND ESTABLISHMENT OF RAINWATER HARVESTING SYSTEMS**

DATE : JUL 18 2023



In view of the crafting of the guidelines on the installation and use of Stationary Watershed Monitoring Instruments and the establishment of Rainwater Harvesting Systems, the Forest Management Bureau will be conducting a meeting/consultation to discuss the aforementioned guidelines on July 21, 2023, at 9:00 AM via Zoom Teleconferencing. The draft policies regarding the aforementioned guidelines can be accessed through the following link: <https://bit.ly/WEMSPC12>.

In this regard, may we invite the following staff for a comprehensive discussion, to wit:

- a.) Regional Watershed Focal Person;
- b.) Regional Database Manager; and
- c.) Regional Planning Representative.

The link for the teleconference will be sent through email on or before July 21, 2023. Should you have any queries, please contact For. John Calvin L. Clarete (02) 8928-2891/ (02) 8927-2491 or email us at [fred.wems@fmb.denr.gov.ph](mailto:fred.wems@fmb.denr.gov.ph)

FOR YOUR INFORMATION AND CONSIDERATION, PLEASE.

  
ARLEIGH J. ADORABLE, CESO III

# **POLICY CONSULTATION ON THE DRAFT ADMINISTRATIVE ORDERS ON THE GUIDELINES FOR THE INSTALLATION AND USE OF STATIONARY WATERSHED MONITORING INSTRUMENTS AND ESTABLISHMENT OF RAINWATER HARVESTING SYSTEMS**

## **RATIONALE**

The Forest Management Bureau recognizes the importance of conducting a policy consultation with key stakeholders from DENR Regional and Field Offices for the guidelines on the installation and use of Stationary Watershed Monitoring Instruments and the establishment of Rainwater Harvesting Systems. The rationale behind this consultation is to engage the relevant internal stakeholders who will play a crucial role in implementing and enforcing these guidelines at the regional and field levels. By involving them in the policy development process, their expertise, experiences, and perspectives can be leveraged to enhance the effectiveness, practicality, and relevance of the guidelines in their respective areas of operation.

## **OBJECTIVES**

1. To obtain insights and expertise from DENR Regional and Field Offices regarding the proposed guidelines for Stationary Watershed Monitoring Instruments and Rainwater Harvesting Systems.
2. To foster collaboration and create a platform for dialogue among DENR internal stakeholders, enabling the exchange of knowledge and best practices in watershed management and water resource utilization.
3. To address any concerns or challenges raised by the DENR Regional and Field Offices, ensuring that the guidelines are feasible and aligned with the operational context and capabilities at the regional and field levels.
4. To build consensus and obtain buy-in from DENR internal stakeholders, promoting a sense of ownership and commitment to the successful implementation of the guidelines.
5. To ensure a smooth and coordinated rollout of the guidelines across the DENR Regional and Field Offices, facilitating consistent and standardized practices in watershed monitoring and rainwater harvesting.

## **OUTPUTS**

1. Active participation and engagement of DENR Regional and Field Offices in the policy development process.
2. Valuable insights, feedback, and recommendations provided by DENR internal stakeholders during the consultation.
3. Identification and resolution of operational challenges and considerations specific to the regional and field contexts, enhancing the practicality and effectiveness of the guidelines.



4. Improved understanding and awareness among DENR internal stakeholders about the objectives, benefits, and implementation requirements of Stationary Watershed Monitoring Instruments and Rainwater Harvesting Systems.
5. Strengthened coordination and alignment among DENR Regional and Field Offices, ensuring a cohesive and harmonized approach in implementing the guidelines.

## **WAYS FORWARD**

1. Schedule a meeting/consultation on July 21, 2023, at 9:00 AM via Zoom Teleconferencing specifically for DENR Regional and Field Offices.
2. Share the draft policies and guidelines through the provided link, allowing participants to review the proposed measures prior to the consultation.
3. Facilitate a structured discussion during the consultation, providing an opportunity for DENR internal stakeholders to share their insights, raise concerns, and provide feedback on the guidelines.
4. Document and compile the valuable inputs, feedback, and recommendations provided by DENR Regional and Field Offices during the consultation for further analysis and consideration in the policy refinement process.
5. Follow up with the participants after the consultation, addressing any outstanding questions or concerns and providing updates on the policy development progress.
6. Incorporate the inputs and recommendations gathered from the DENR Regional and Field Offices into the guidelines, ensuring their practicality and relevance in the regional and field contexts.

## **Policy Proposal**

### **I. Title.**

“GUIDELINES FOR THE ESTABLISHMENT OF STATIONARY  
WATERSHED MONITORING INSTRUMENTS”

### **II. Policy Instrument.**

DENR Administrative order.

### **III. Rationale/Overview.**

The Department particularly the Forest Management Bureau acknowledges the importance of the Real-Time and Science-Based Monitoring Instruments of the Watersheds particularly in understanding its behaviour given the prevailing external factors. The continuous gathering of precise and reliable data using accepted methods and tools is necessary for monitoring. Designing watershed management interventions, such as assisting communities in disaster risk management and conducting watershed monitoring and evaluation, require the installation of specific instruments generating real-time data and information relevant to the characterization of the condition of the watershed. The analysis of the results of these instruments is crucial input to proper decision and effective management action over the various challenges in the watersheds in the country. Therefore, the installation of Automated Weather Station (AWS), Automated Water Level Station (AWLS) and Conductivity, Temperature, and Depth (CTD) Groundwater Sensor is one of the priorities of the Bureau and is currently being targeted by the Field Offices/Regional Offices. In fact, there is an ongoing effort to upscale the construction of similar instruments to other priority critical watersheds in the country. In the coming years, the goal is to acquire and install additional watershed instruments to further understand the watersheds in the country.

### **IV. Problem Description.**

1. Weak Watershed Database. Not all watersheds have characterization reports, vulnerability assessments and Integrated Watershed Management Plans (IWMPs).
2. Insufficient real-time monitoring system through watershed instrumentation. Insufficient science-based tool to monitor, evaluate and assess the progress and effectiveness of programs, projects and activities in watersheds.

### **V. Possible Policy Options or Alternatives.**

Not Applicable

## VI. Salient Features of the Proposed Policy.

1. Watershed Monitoring Instrumentation Program
2. Stationary Watershed Monitoring Instruments
  - a. Automated Weather Station (AWS)
    - i. Parameters/ Generated Data
    - ii. Requirements and Criteria for Site Selection
    - iii. Encasement of the Instrument
    - iv. Design, Specification, and Bill of materials
  - b. Automated Water Level Station (AWLS)
    - i. Parameters/ Generated Data
    - ii. Requirements and Criteria for Site Selection
    - iii. Encasement of the Instrument
    - iv. Design, Specification, and Bill of materials
  - c. Conductivity, Temperature, and Depth (CTD) Groundwater Sensor
    - i. Parameters/ Generated Data
    - ii. Requirements and Criteria for Site Selection
    - iii. Encasement of the Instrument
    - iv. Design, Specification, and Bill of materials
3. Preparation of Memorandum of Agreement
4. Maintenance of established instruments

## VII. Stakeholders Concerned/Involved.

1. DENR Field Offices
2. Local Government Units (LGUs)
3. Other concerned Government Agencies

### VIII. Activity Plan.

[illegible]



| Activities                                | First Quarter |     |     | Second Quarter |     |     | Third Quarter |     |     | Fourth Quarter |     |     |
|---|---------------|-----|-----|----------------|-----|-----|---------------|-----|-----|----------------|-----|-----|
|   | Jan           | Feb | Mar | Apr            | May | Jun | Jul           | Aug | Sep | Oct            | Nov | Dec |
| Policy Review Committee (PRC)             |               |     |     |                |     |     |               |     |     |                |     |     |
| 7. Revisions (if any)                     |               |     |     |                |     |     |               |     |     |                |     |     |
| 8. Review and Critiquing by DENR PTWG     |               |     |     |                |     |     |               |     |     |                |     |     |
| 9. Finalization of the Guidelines/ Policy |               |     |     |                |     |     |               |     |     |                |     |     |

**IX. Costs/Resource Requirements (human, financial, operational, technological resources).**

1. Travelling Expenses - fieldworks; and
2. Representation Expenses - meetings, and workshops, among others

**X. Analytical Tool.**

Not applicable.

## **Policy Proposal**

### **I. Title.**

“GUIDELINES FOR THE ESTABLISHMENT OF RAINWATER  
HARVESTING SYSTEM (RHS)”

### **II. Policy Instrument.**

DENR Administrative order.

### **III. Rationale/Overview.**

The country receives a relatively high average rainfall throughout the year. However, there is an unequal distribution of rainfall amount that varies over time and space. This is magnified by the climate change impact particularly the sea surface temperature rises which causes prolonged dry spell and high volumes of rain that cause floods. Despite the high volume of water received by the country, its beneficial use in the sectors of industrial, domestic, agricultural, and forestry is not fully optimized.

While there is little or no rainwater harvesting facilities installed in the upland portions of the watersheds in the country and in the adjacent countries in Asia, other countries took advantage of this technology in order to sustain water availability in their forest areas. India and China, for example, are using rainwater harvesting pits and check dams across the state in order to increase the survival rate of their forest plantations.

Given this situation, the Forest Management Bureau (FMB) finds it essential to consolidate the efforts to strengthen and institutionalize rainwater harvesting in the country, particularly in the watershed areas. This is in accordance with the endeavors of the Department to attain sustainable forest management and support the rehabilitation areas through the provision of adequate water supply during the dry season.

### **IV. Problem Description.**

Given that the RHS is yet to be established in the upland areas, there is a need to standardize its selection criteria and requirements. Further, recommend design is needed to ensure the efficiency of the RHS.

### **V. Possible Policy Options or Alternatives.**

Not Applicable

## VI. Salient Features of the Proposed Policy.

1. Selection Criteria and Requirements for the Establishment of RHS
  - a. Rainfall;
  - b. Soil Type;
  - c. Slope;
  - d. Other Permits/Certificates needed;
  - e. NGP Areas; and
  - f. Site Suitability.
2. Major Component of RHS
  - a. Earthen Type; and
  - b. Roof Type.
3. Beneficiaries of RHS
  - a. ENGP Holders; and
  - b. Communities.
4. Standard Costing of RHS
5. Provision of Recommended Design of RHS
6. Maintenance of RHS

## VII. Stakeholders Concerned/Involved.

Peoples Organizations/Farmers Associations involved in the implementation of National Greening Program (NGP) and other Reforestation Projects of the DENR.

### VIII. Activity Plan.

[illegible]



| Activities                                | First Quarter |     |     | Second Quarter |     |     | Third Quarter |     |     | Fourth Quarter |     |     |
|---|---------------|-----|-----|----------------|-----|-----|---------------|-----|-----|----------------|-----|-----|
|   | Jan           | Feb | Mar | Apr            | May | Jun | Jul           | Aug | Sep | Oct            | Nov | Dec |
| 8. Review and Critiquing by DENR PTWG     |               |     |     |                |     |     |               |     |     |                |     |     |
| 9. Finalization of the Guidelines/ Policy |               |     |     |                |     |     |               |     |     |                |     |     |

**IX. Costs/Resource Requirements (human, financial, operational, technological resources).**

1. Travelling Expenses - fieldworks; and
2. Representation Expenses - meetings, and workshops, among others.

**X. Analytical Tool.**

Not Applicable.