



DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES  
KAGAWARAN NG KAPALIGIRAN AT LIKAS YAMAN



**MEMORANDUM**

**TO :** The Mindanao Regional Executive Directors  
Regions IX, X, XI, XII and XIII

**FROM :** The Undersecretary  
Field Operations, MGB & EMB – Mindanao

**SUBJECT :** EARTH-BALLING AND TRANSPLANTING PERMIT REQUEST  
OF DENR REGIONAL OFFICES

**DATE :** 12 MAR 2024

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This has reference to the Memorandum dated 04 March 2024 from the Assistant Secretary for International Affairs and BMB Director, in concurrent capacity relative to the Earth-Balling and Transplanting Permit Request of DENR Regional Offices 7, 8, and CALABARZON.

Anent the above, we are furnishing your respective offices a copy of this Memorandum for your additional reference and guidance in the implementation of field activities relative to the subject matter.

For information, reference and record.

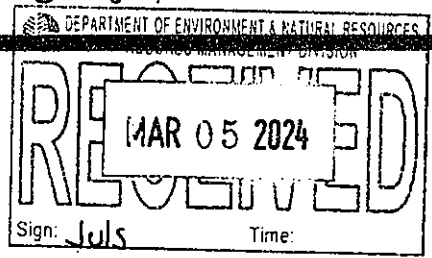
JOSELIN MARCUS E. FRAGADA, CESO III

**Copy Furnished:**

- The Assistant Secretary for Field Operations – Eastern Mindanao
- The Assistant Secretary for Field Operations – Western Mindanao
- The Director, Biodiversity Management Bureau

MEMO NO. -2024-243

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**MEMORANDUM**

**FOR :** The Regional Executive Director  
DENR Region 7, 8, CALABARZON

**FROM :** The Assistant Secretary for International Affairs,  
and concurrent OIC Director

**SUBJECT :** EARTH-BALLING AND TRANSPLANTING PERMIT REQUEST OF  
DENR REGIONAL OFFICES

**DATE :** MAR 04 2024

This is in connection with the Memorandum dated January 26, 2024, from the Assistant Secretary for Field Operations - Western Mindanao and Director, in concurrent capacity, of the Forest Management Bureau forwarding the earth-balling and transplanting permit request of DENR Regional Offices 7, 8, and CALABARZON regarding the above-mentioned subject.

- I. **Concerns on the full transfer of Mangrove-related concerns to BMB.**  
Please be informed that while we recognize the agreements from a pre-Programming cum One-on-One Consultations with the Bureaus/Sectors last November 2023, an official policy and/or issuance for the transition of all mangrove-related concerns is important for this Bureau to take on the work and make adjustments in our work plans, staffing plans, unit of work measure, and augmentation of the workforce, as appropriate.
- II. **Concerns on the existing policies concerning mangrove earth-balling and relocation.**  
Nevertheless, this Bureau recommends a revisitation or development of clarificatory guidelines for existing policies (i.e. DENR Administrative Order No. 2021-11, DAO 2020-06, and other related policies) on the earth-balling and/or relocation of Mangroves, in consideration of the following:
  - A. Mangroves grow and thrive in specific conditions and locations:
    - 1. Uprooting mangroves from the source site will affect dependent wildlife and biodiversity that utilize the area for food and shelter, and will also release carbon sequestered in the soil.
    - 2. The relocation site must be sufficiently similar to its source site for mangroves to thrive and contribute to biodiversity.
  - B. Successful mangrove transplantation also depends on several factors:
    - 1. Large and mature mangroves would have already developed complex and vast root systems as are characteristic of all mangrove species; any damage to these root systems greatly increases the chances of

mortality. As was likely the case in reported earth-balled mangrove sites with high mortality rates, among other factors.

2. Other factors include individual health, soil conditions, water availability, and proper aftercare.
3. Young mangroves may be suitable for earth-balling or transplantation, with consideration of the above factors.

C. The ERDB is conducting an experimental study on proper, science-based procedures for the earth-balling of mangroves. As such, there may be merit in awaiting the development of said guidelines.<sup>1</sup>

### III. Recommendations on the following applications:

May we respectfully provide our recommendations on various applications forwarded to this Bureau:

- A. This Bureau ultimately recommends awaiting the results of the ERDB study and their development of science-based procedures for earth-balling of sensitive and protected species such as mangroves.
- B. We further recommend clear communication to the current set of proponents and future proponents that the DENR is in the process of developing science-based guidelines for earth-balling of mangroves to improve success rates, as well as determine its suitability across case-to-case bases, in consideration of the factors enumerated in Section II above.
- C. We acknowledge these projects as part of the development of the municipalities it will cover. However, upon inspection of the maps provided, we found the following:
  1. **REGION 8:** While the development of the road in Brgy. Maac, Municipality of Sogod, Southern Leyte will only affect a total of 17 mangrove stands, the remaining mangroves on the seaward side of the road might not survive. Mangroves rely on loose sediments from upland that flow down seaward, hence, constructing the road will obstruct the sediment flow and might affect the mangrove stands beyond it. Additionally, the proponent failed to provide the map for the proposed transplanting site for the earth-balled mangroves.
  2. **REGION 7:** The proposed diversion and bypass road at Brgy. Tangil, Municipality of Dumanjug, Cebu will affect 156 *bungalon* (*Avicennia spp.*) mangrove tree stands. While some *Avicennia spp.* can thrive in seaward zones, there are certain species that best thrive in the middleware zone. It is best if these *bungalon* mangrove species are properly identified if the proposed transplantation site is a seaward zone.

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<sup>1</sup> [Development of science-based earthballing procedure pursues the need to preserve the mangroves | Ecosystems Research and Development Bureau - DENR https://erdb.denr.gov.ph/development-of-science-based-earthballing-procedure-pursues-the-need-to-preserve-the-mangroves/](https://erdb.denr.gov.ph/development-of-science-based-earthballing-procedure-pursues-the-need-to-preserve-the-mangroves/)

3. **REGION 7:** The same concern as above arises with the application of Azora Holdings Incorporated at Brgy. San Isidro, Municipality of San Fernando, Cebu. Mangrove stands from the middleward to the landward zone are proposed to be earth-balled and transplanted to the seaward zone, possibly disturbing the seagrass beds (if any); and some of the middleward to landward species will not survive if transplanted to the seaward zone.

Additionally, this Bureau would also like to confirm if the proponents have the relevant tenurial instruments for the project. The maps provided as requirement show that the project sites are covered by forestland classification.

4. **CALABARZON:** The same concern with all of the above arises with the project proposal to build a beach resort "Catanauan Cove White Sand Beach Resort & Residences," at Sitio Paraiso, Brgy. Cutcutan, Municipality of Catanauan, Quezon. The location of the beach resort is landwards of the mangrove eco-park in the area, and the proposed transplanted site is in the seaward zonation. It is best to identify the mangrove species to be earth-balled to ensure that the translocation site best fits the criteria for mangrove survival. Additionally, the location of the project will also cut the sediment flow from terrestrial ecosystems to the mangrove ecosystems which will affect mangrove conditions.

Additionally, this Bureau would also like to confirm if the proponents have tenurial instruments for the project. As the maps provided as requirements show that the project site is near/along the shoreline which requires a foreshore lease agreement or any other relevant lease agreement.

- D. We acknowledge that the requesting parties of Azora Holdings Incorporated and the Catanauan Cove White Sand Beach Resort & residences hold rights and jurisdiction over the private property. If earth-balling and translocation are to be pursued, it is recommended that all stakeholders await the science-based policy and guidelines on earth-balling.
- E. Lastly, we recommend exploring further any environmentally and sustainably sound infrastructure designs for any and all development projects by the proponents/applicants, so as to further minimize any earth-balling or possible damage to mangroves covered by their projects.

In this regard, we also recommend that acceptance of other succeeding applications be put on hold; and that this be communicated properly to the current and interested proponents.

Rest assured that this Bureau is also taking the necessary steps to judiciously facilitate this concern to ensure conservation and protection, alongside sustainable use of our coastal and marine resources and areas.

For your information and consideration.



**MARCIAL C. AMARO, JR.**

cc: *The Undersecretary for Policy, Planning and International Affairs*  
*The Undersecretary for Field Operations - Luzon, Visayas and Environment*  
*The Undersecretary for Field Operations - Mindanao*  
*The OIC Assistant Secretary for Field Operations - Western Mindanao, OIC Director of Forest Management Bureau*  
*The Director, Ecosystems and Research Development Bureau*  
*The Director, Land Management Bureau*



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



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