



Republic of the Philippines
OFFICE OF THE SECRETARY
Elliptical Road, Diliman
1100 Quezon City

DEPARTMENT OF AGRICULTURE
in replying pls cite this code :
For Signature: S-10-21-0161
Received : 10/11/2021 10:03 AM

MEMORANDUM ORDER

No. 63

Series of 2021

**SUBJECT : PROMOTING THE USE OF AGRICULTURAL DRONES TOWARDS
THE TRANSFORMATION OF PHILIPPINE AGRICULTURE**

WHEREAS, the Department of Agriculture (DA) is pushing its key strategies to push the transformation of the Philippine agriculture and fishery sector into a modernized and industrialized powerhouse, in line with the Department's New Thinking and OneDA Reform Agenda.

WHEREAS, Technology and Innovation, including Digital Agriculture, is one of the key strategies in attaining modernized agriculture. Digital technology and innovations are being leveraged throughout the food value chain and logistics, starting with the efficient distribution of farm inputs to farmers, sowing of seeds, fertilizer application, pest and disease surveillance, and location of post-harvest facilities like storage facilities.

WHEREAS, the introduction of modern technologies resulted in significant advancements in many industries, including agriculture. One of the innovations introduced is the Remotely Piloted Aircraft System (RPAS), more commonly known as drones.

WHEREAS, agricultural drones play a crucial role in precision farming and provide many advantages and features such as rapid field measurements, monitoring crop and soil condition, seed sowing, fertilizer and pesticide application, irrigation, and farm surveillance, among other advances. These capabilities will ultimately optimize agriculture operations and enrich productivity by efficiently using fertilizers, water, farm inputs, and other resources. For the fishery sector, the drone is useful in the automation of feeding tasks in fishponds.

WHEREAS, drones are equipped with navigation and photogrammetric equipment that can generate detailed data that improve crop yields and farm efficiency. A drone's aerial view can provide information on soil variations, pest and disease infestations, irrigation problems, plant health, and other matters of concern. These views are helpful in the identification of farm-related problems and in the application of necessary, appropriate, and timely interventions to correct the problems.

A food-secure and resilient Philippines
with empowered and prosperous farmers and fisherfolk



WHEREAS, the imagery generated from drone flights can guide agricultural infrastructure projects and service facilities like irrigation and storage to serve local farmers best.

WHEREAS, drones also significantly accelerate the process of risk analysis. The Philippine government and Food and Agriculture Organization (FAO) have started using aerial drones to assess farmlands most vulnerable to natural disasters. Drones can expedite assessing damages and identifying measures to reduce the ill effects of calamities and design responses for the affected farmers and fishers.

WHEREAS, the DA-Fertilizer and Pesticide Authority (FPA) has established guidelines for the safe and proper use, storage, and disposal of fertilizers and pesticides in connection with their use of drones and continues to enhance drone use regulations to rationalize application of fertilizers and pesticides.

NOW, THEREFORE, I, WILLIAM D. DAR, Secretary, Department of Agriculture, by the powers vested in me by law, do hereby order the following to intensify the promotion and application of drones in agriculture:

1. Pending the label expansion of specific pesticides for drone use, the FPA shall issue emergency use permits or experimental use permits (EUP) for green and blue label pesticides suitable for drones to product registrants or FPA accredited pesticide applicators. The duly registered and qualified service providers can use these pesticides provided they have accredited pesticide applicators and drones with sprayer nozzles that result in less pesticide use, precise application, manageable drip. The service providers must also meet the safety standards prescribed under FPA's Memorandum Circular No. 28, Series of 2018 on Good Agricultural Practices for Remotely Piloted Aircraft System (RPAS) for Use as Spraying.
2. The DA-Regional Field Offices (RFOs) shall promote the use of drones to reduce cost, increase yield, protect the environment, and the safety and health of farmers. This application shall include the use of drones to 1) reduce seeding rates in direct seeding, 2) apply less pesticide and fertilizer, 3) improve crop monitoring and management, and 4) enhance the safety and health of farmers. The cost and benefit shall be documented and analyzed by the Regional Agricultural Engineering Division (RAED).
3. The RFOs shall promote drone use in agriculture on a large scale covering at least five farm clusters (about 50 hectares total) in each of the 57 major rice-producing provinces. The drones shall be used for various purposes, i.e., sowing, fertilizer and pesticide application, and crop monitoring of target farm clusters.



A food-secure and resilient Philippines
with empowered and prosperous farmers and fisherfolk



4. The RFOs may develop their capacity to operate drones through their RAED or contract out the services of drone service providers. If the RFO develops its capacity, it shall comply with all requirements for the operation of drones prescribed by the CAB, CAAP, and FPA. The drones that shall be acquired should have specifications that allow multifunctional application (sowing, fertilizer and pesticide application, crop monitoring). Preferably, the drone model should be 2021 and beyond to ensure multifunctionality, use of artificial intelligence, and longer battery life. Additionally, the procurement of drones shall be subject to R.A. 9184 or the Government Procurement Reform Act.
5. For contracted-out services, the service provider should be duly registered with the CAB, CAAP, and FPA. Pesticides use must have the proper authorization from FPA. The service provider must ensure that the drone accessories for pesticide application minimize exposure to those mixing and cleaning the sprayer equipment. Lastly, the procurement of the service providers by the RFO's must also comply with R.A.9184.
6. The FPA, together with PhilRice, ATI, and BPI, shall develop a training manual on the proper use of pesticides applied using drones to localize and standardize the procedures. All concerned implementing units, especially the RFOs, shall educate farmers/fishes for their awareness and learning that lead to the promotion of drones in agriculture.
7. The FPA, PhilRice, RFOs, and other agencies shall share pertinent reports and data to other DA bureaus and attached agencies useful for scaling drone application in agriculture.

This Memorandum Order shall take effect immediately.

Done this 11th day of October 2021.



WILLIAM D. DAR, Ph.D.

Secretary



A food-secure and resilient Philippines
with empowered and prosperous farmers and fisherfolk

