



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

MEMORANDUM ORDER

No. 58
Series of 2021

**SUBJECT: GUIDANCE FOR THE ATTAINMENT OF HIGHER RICE PRODUCTION
IN 2022, GOING BEYOND THE 2020 AND 2021 RICE PRODUCTION**

WHEREAS, we have achieved record-breaking production in 2020 and the 1st semester of 2021. We expect to have another record-breaking production in 2021.

WHEREAS, we have achieved this record production by increasing investments in yield increasing interventions, more extensive strengthening of farmers' capacity to apply productivity-enhancing practices, and stronger collaboration with partners to implement and scale up various interventions. These have allowed us to further increase the production in high yielding areas and low yielding areas.

WHEREAS, this year, we have also started working with the National Irrigation Administration (NIA) to adjust the cropping calendar to reduce the risk from the devastating typhoons that affect our rice production every year.

WHEREAS, based on available data (e.g., PSA and PRISM data) and local knowledge, we can now identify localities and planting times with low rice yields and production (Figure 1 and 2). We see significant opportunities to increase the yield per hectare and provincial production. We have to focus on these low-yielding areas, identify the constraints and risks, and recommend options to address them.

WHEREAS, we can harness the vast technical experience and knowledge of DA staff, local agriculture staff, farmer leaders, private company technicians, and other experts to tackle these challenges of pushing yield and production.

WHEREAS, we shall aim for a minimum of 5% increase (over 2021 production) in rice production of each of the PIRP (NRP & RCEP) target provinces or an overall target of more than 21M MT in 2022. This target will justify the more than P55Billion that the government invests in the rice sector in 2022.

FURTHERMORE, two memoranda were issued in 2020 guiding how to optimize rice yield and production in the different provinces. The recommendations of the memoranda guided the targeting of interventions in many locations this year.

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WHEREFORE, based on what we have learned from our current efforts to attain higher rice yield and production and reinforce our actions further, this memorandum order is being issued for all concerned offices to mainstream their operations and implement in scale.

NOW, THEREFORE, I, WILLIAM D. DAR, Ph.D., Secretary, Department of Agriculture, by the powers vested in me by law, do hereby order the Field Operations Service (FOS), National Rice Program (NRP), Rice Competitiveness Enhancement Program (RCEP), Regional Field Offices (RFOs), Agricultural Training Institute (ATI), Bureau of Soils and Water Management (BSWM), Philippine Rice Research Institute (PhilRice), and Philippine Center for Postharvest Development & Mechanization (PHilMech), the wide-scale implementation of the following guidelines :

- 1) **Select the most suitable variety for specific location:** Specific hybrid rice varieties have shown clear and convincing yield advantage in well-irrigated areas. Hence, we should promote their use in areas where they have shown significant yield advantage over other hybrid and inbred rice varieties. Likewise, promote planting of specific inbred varieties that have shown yield advantage over other varieties in specific cropping season and location. Furthermore, focus on the distribution of certified seeds in low usage areas.
- 2) **Adjust planting calendar to reduce yield loss and maximize yield:** Identify the best planting dates by considering the harvesting date that gives high yield and low risk to harvest loss. Where possible, reduce the planting period to the best three months considering the expected effect of La Niña, labor availability, pests and diseases, and adjusted irrigation schedule. Work with the National Irrigation Administration (NIA) and irrigators associations (IAs) to identify the best three months for planting rice; 3 months with the highest yields; least risk to typhoons and floods during the wet season; and cold spells, drought, and water shortage during the dry season. We have also noted that there are months of planting where farm yields are low due to climatic risks (high typhoon frequencies, flooding risks, cold spells, droughts, etc.) that we should mitigate. In many places, the time of planting (December - January) is significant during the dry season to avoid the cold spell (January and February) and drought (April and May) but take advantage of the good solar radiation (March and April). It is also important to adjust planting dates (June- early July) during the wet season to avoid the adverse impact of the series of typhoons hitting Luzon and Visayas by October and November.
- 3) **Apply PalayCheck for the best crop management practices:** Use the PalayCheck to guide crop management by employing the most suitable practices. PalayCheck has the best recommended practices that we can use to diagnose and address some of the constraints to production (including using the Rice Crop Manager). It also integrates our interventions with the best practices recommended. Disseminate the recommended practices using School on the Air (SOA) program and other rapid means of information dissemination. We have to disseminate, campaign, and convince our farmers about the advantages of our recommendations.

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- 4) **Resolve location-specific yield and production constraints.** Using available technical data and local knowledge to address location-specific soil fertility and pests constraints. We need proper nutrient management through appropriate fertilization. Pay special attention to micronutrient deficiencies like Zinc and Sulfur. These two elements can limit the effectiveness of NPK and seed interventions. You conduct soil testing to identify macro- and micro-nutrient deficiencies (e.g., Minus 1 Element test kit). For pests and diseases, identify pest hotspots by applying the appropriate Integrated Pest Management (IPM). As a guide to identifying constraints, see attached Table 1.
- 5) **Scale-up cost-reducing and productivity-enhancing innovations.** Analyze the cost structure of rice production in your area together with the constraints in production and scale-up innovations that reduce cost and at the same time improve productivity. We are seeing the benefits of using a combined harvester in reducing post-harvest loss and reducing labor costs. Consider scaling innovations that could reduce the cost of production, increase yield, more efficient use of inputs, and reduce risk to the farmers and their rice production. These innovations include the use of drones for direct seeding, application of fertilizer, and spraying of insecticide spraying.
- 6) **Promote Bayanihan Agri Cluster (BAC) for more effective provision of services and to enhance farmers' empowerment.** Use the BAC to integrate various interventions and services, including the organization of rice farmers to achieve and gain more from economies of scale. Link farm clusters to credit, market, service and input providers, and technical support and innovation. The BAC can promote coordinated and organized value chain systems to increase productivity by fostering the "Big Brother- Small Brother" approach.
- 7) **Strengthen partnership and co-ownership.** The key to attaining scale and success is through our strong partnership with other agencies and organizations (government and non-government) that will make them co-own the process and the outputs. Hence, build, nurture and sustain partnerships and co-ownership. It is essential to ensure that our partners are part of important processes as we implement our operations.

To guide regional staff and partners, each Regional Director and the Field Operations Service (FOS), National Rice Program (NRP), Rice Competitiveness Enhancement Program (RCEP), Regional Field Offices (RFOs), Agricultural Training Institute (ATI), Bureau of Soils and Water Management (BSWM), Philippine Rice Research Institute (PhilRice), and Philippine Center for Postharvest Development & Mechanization (PHilMech), must work together to ensure their work plans and budget for the rice in the region will support the implementation of the above guide. The DA FOS will consolidate and harmonize the plans to serve as the 2022 Philippine Integrated Rice Program (PIRP) operational plan.

This Memorandum Order shall take effect immediately.

Done this 28th day of September 2021.


WILLIAM D. DAR, Ph.D.
 Secretary

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DEPARTMENT OF AGRICULTURE

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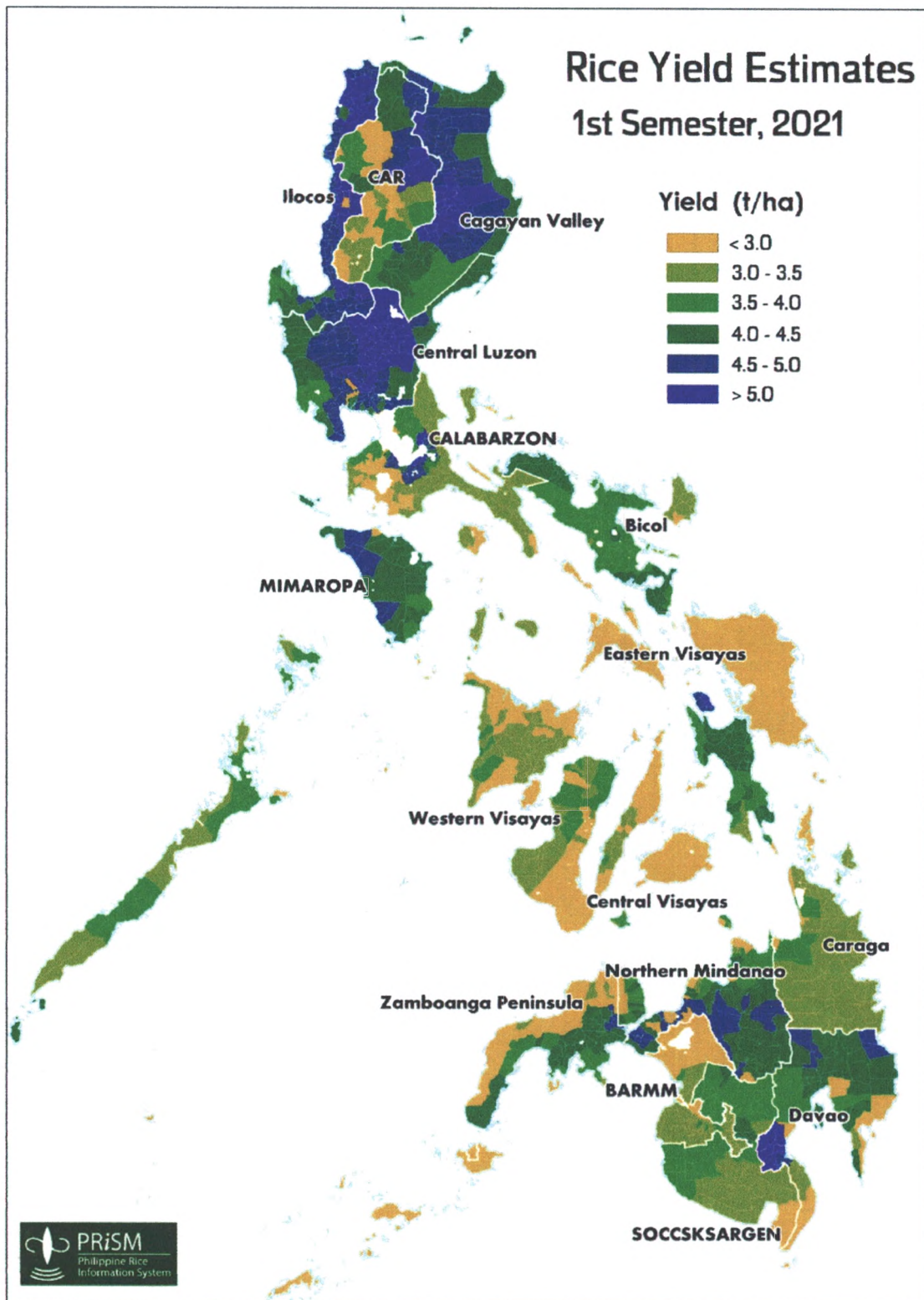


Figure 1. PRISM Data on the yield performances of different municipalities and provinces in the Philippines during the first semester of 2021

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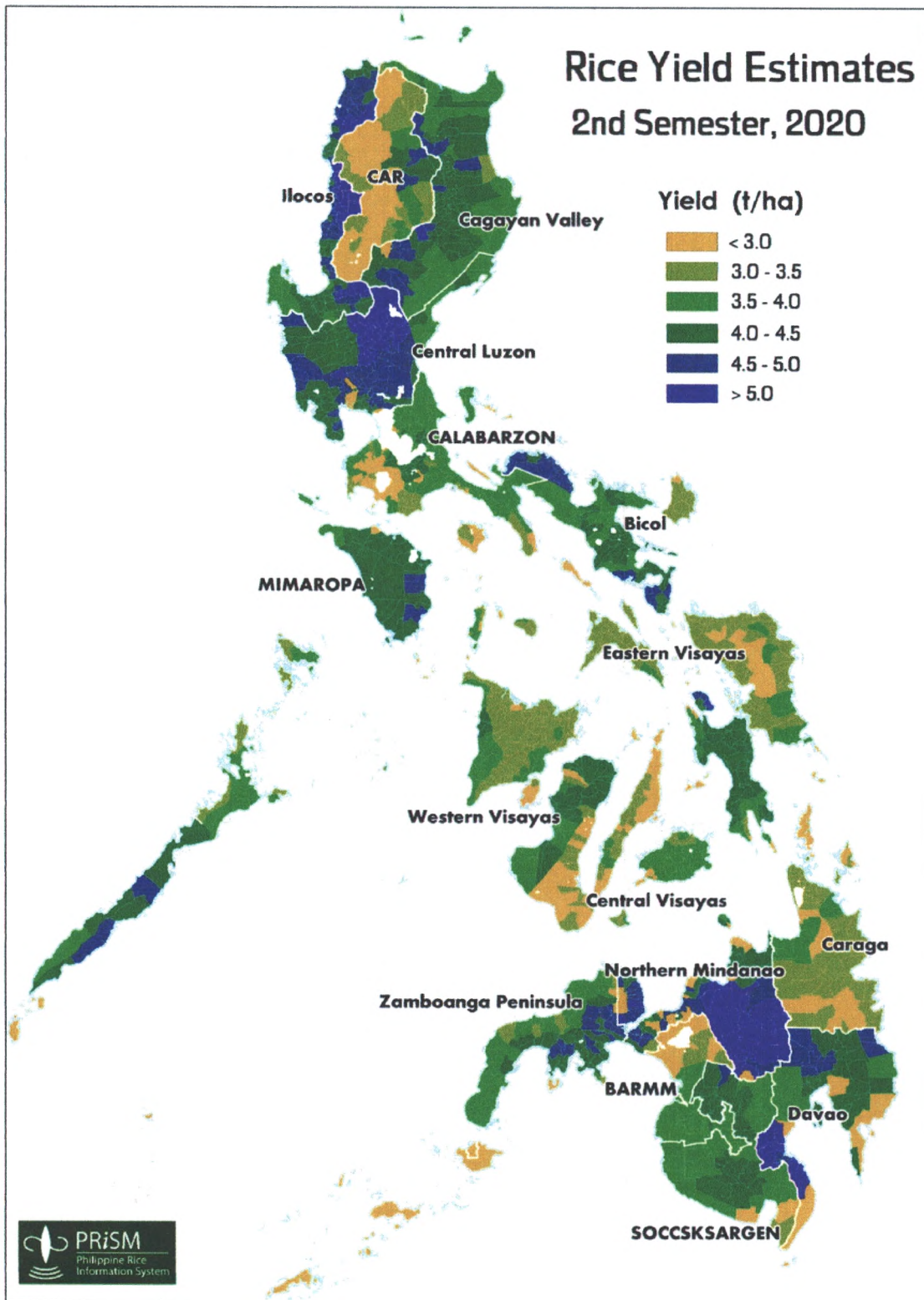


Figure 2. PRISM Data on the yield performances of different municipalities and provinces in the Philippines during the second semester of 2020

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Table 1. Addressing rice production constraints and optimizing rice yields.

Farm Conditions	Grain yield (t/ha/season)					
	Wet or Adverse Season			Dry or Favorable Season		
	Hybrid rice	Certified seeds	Good seeds	Hybrid rice	Certified seeds	Good seeds
Maximum attainable yield <i>(Limited by climate and variety)</i>	9.20	8.00	7.20	11.50	10.00	9.00
Yield with best nutrient and cultural mgt practices <i>(Limited by lodging)</i>	7.36	6.40	5.76	9.20	8.00	7.20
Yield when there are macronutrient (NPK) and water problems	5.52	4.80	4.32	6.90	6.00	5.40
Yield when there are micronutrient (Zinc, Sulfur, etc.), pests, and crop mgt problems <i>(crop establishment, land preparation)</i>	3.68	3.20	2.88	4.60	4.00	3.60

NOTE: Maximum attainable yield is based on inherent weather, hydrological (*i.e. flooding*), and soil (*texture*) conditions in the area. It fluctuates from year to year by $\pm 10\%$.

There is 15% increase in using hybrid seeds compared to inbred certified seeds.

There is 10% decrease by using good seeds compared to inbred certified seeds.