

Palayamanan: A holistic approach for sustainable intensification and diversification of organic rice-based farming systems for smallholders in the Philippines

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Outline

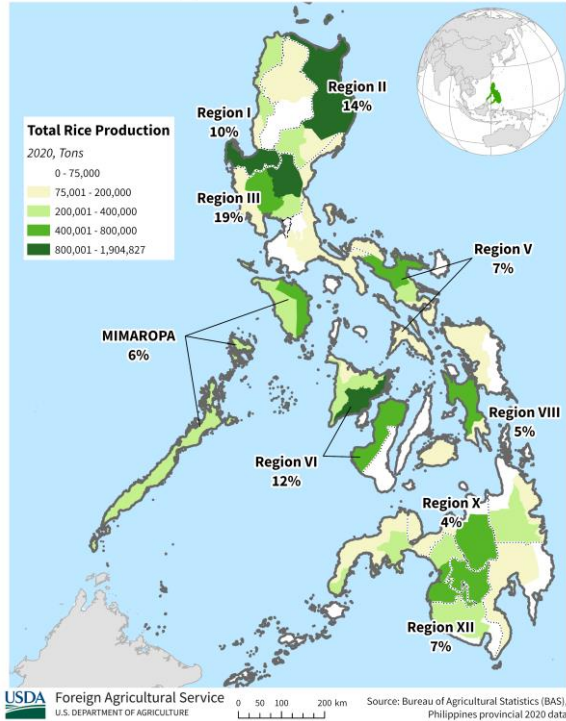
- Emergence of Organic Rice Movement in the Philippines
- Current status of organic farming and marketing
- The *Palayamanan*
- Enabling mechanisms for organic farming in the Philippines
- Scaling the organic rice-based farming system

The Philippine Context

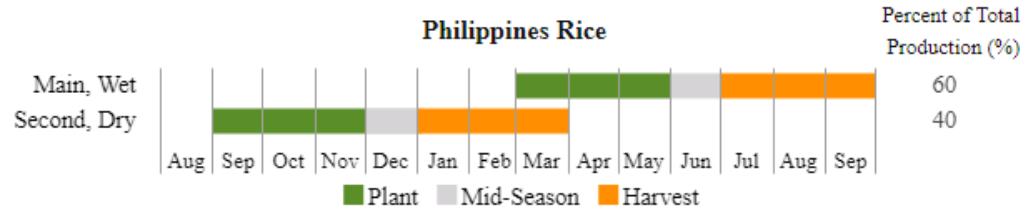
Emergence of the organic rice movement



Philippines: Total Rice Production

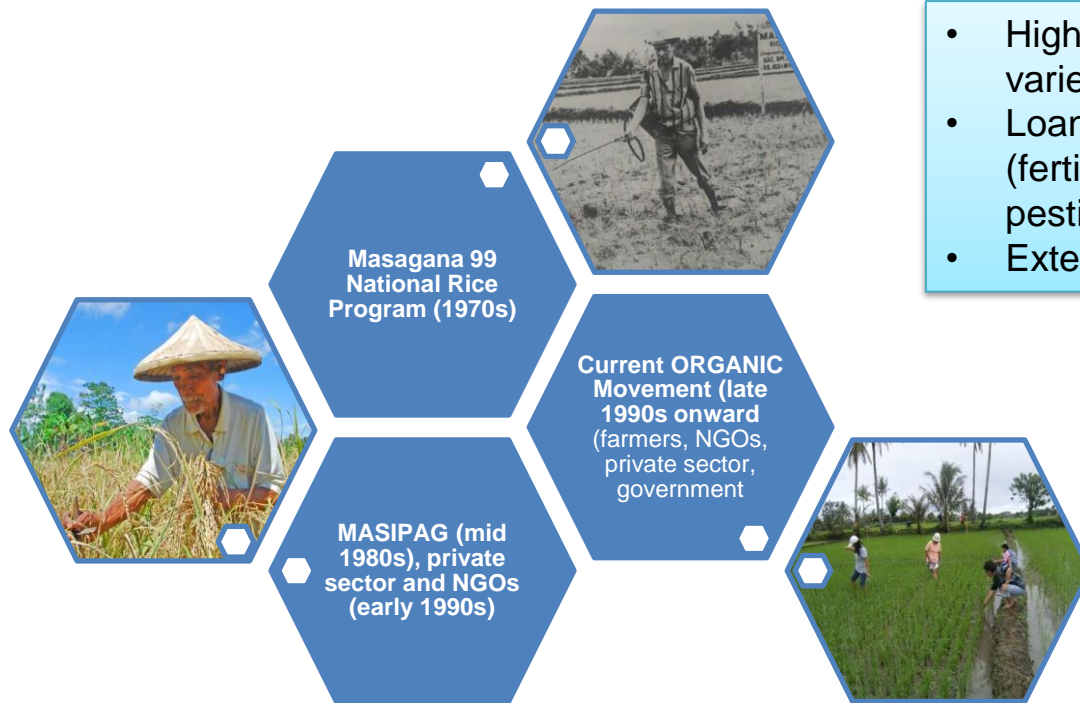


- 4.85 M ha rice area (2022)
- 12.6 M mt total rice production (2022)
- 2.8 M rice farmers, mostly smallholders
- < 1 ha average rice farm size



Rice Production in the Philippines

- Increasing poverty
- Food insecurity
- Debt-incurred land loss



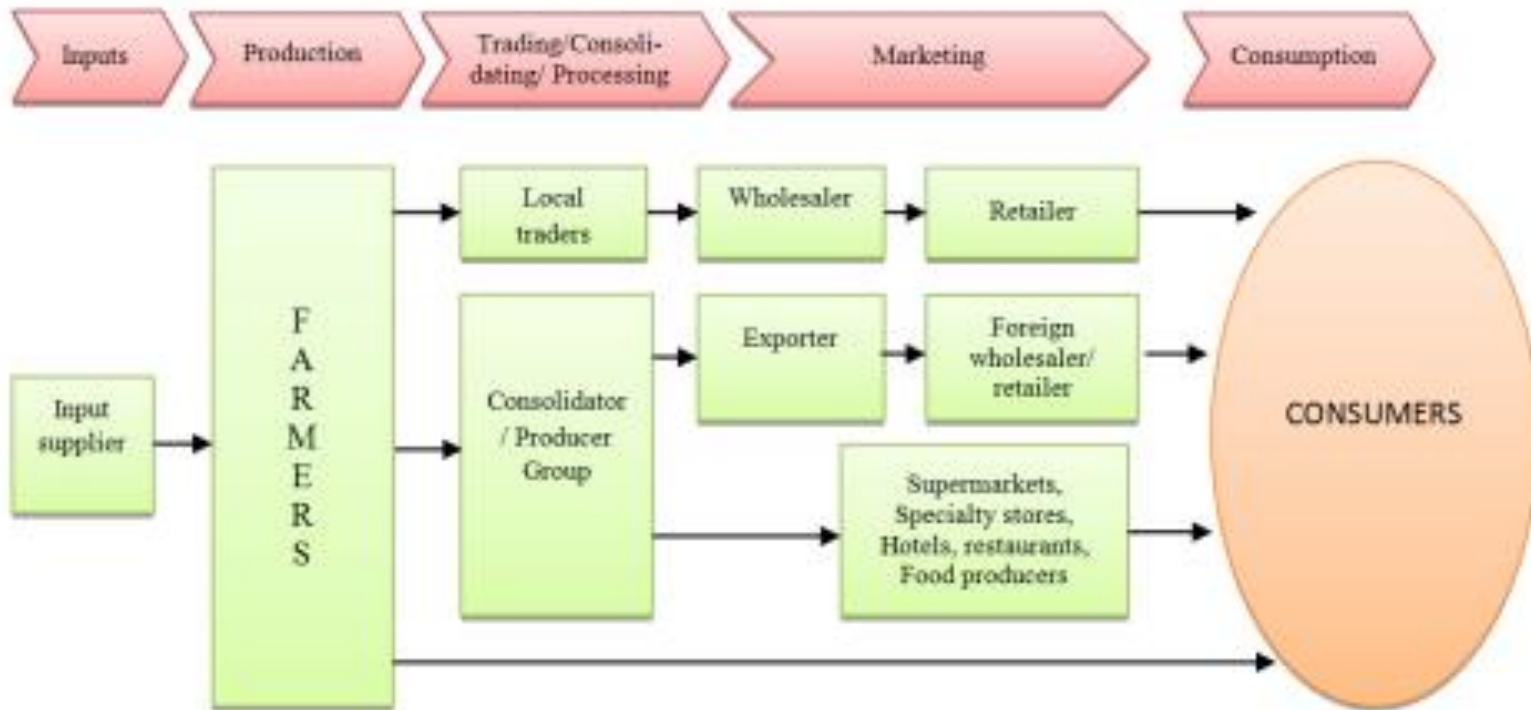
- High yielding varieties
- Loans (fertilizers, pesticides)
- Extension

MASIPAG: *Magsasaka at Siyentipiko para sa Pag-unlad ng Agrikultura* (Farmers and Scientists for Agriculture Development)

Photo source: <https://ipam-global.org/farmer-scientist-partnership-for-development-masipag/>;
Organic Farmers Association of Aklan (OFAA)

- Perspectives on organic agriculture (OA) in the Philippines:
 - 1) OA as a bottom up rural development strategy
 - 2) organics as producer/consumer lifestyle for the upper-middle class
 - 3) government institutional driven as high value-niche of the agriculture sector





The Organic Rice Value Chain in the Philippines

Current status of organic rice production

- 234,000 organic farmers cultivating 166,000 ha (2017)
- 14,209 hectares grown to organic rice by some 34,990 farmers (2005); increasing at 10–20% annually*
- 6,600 ha as certified organic farms by 3rd party certifiers (2023)
- Most farmers grow organic rice and other crops as monocrops

*Conception, et al., 2008,

**Digal and Balgos, (2019); www.philexport.ph

Current status of organic rice marketing



<https://shop.gerald.ph/organic-brown-rice>

- 16 brands produced by farmers/cooperatives and companies
- Organic rice sold in 3 labels
 - Organic and certified
 - Organic sans certification
 - Unlabeled (Participatory Guaranty System)
- Catering to a niche market (middle-upper middle class; affluent consumers)
- Organic rice is priced 20–30% higher than conventional rice*
- Demand for organic rice @30–40% annually*

*Digal and Balgos, 2019); www.philexport.ph



Sustainable intensification and diversification of organic rice-based systems

The Palayamanan



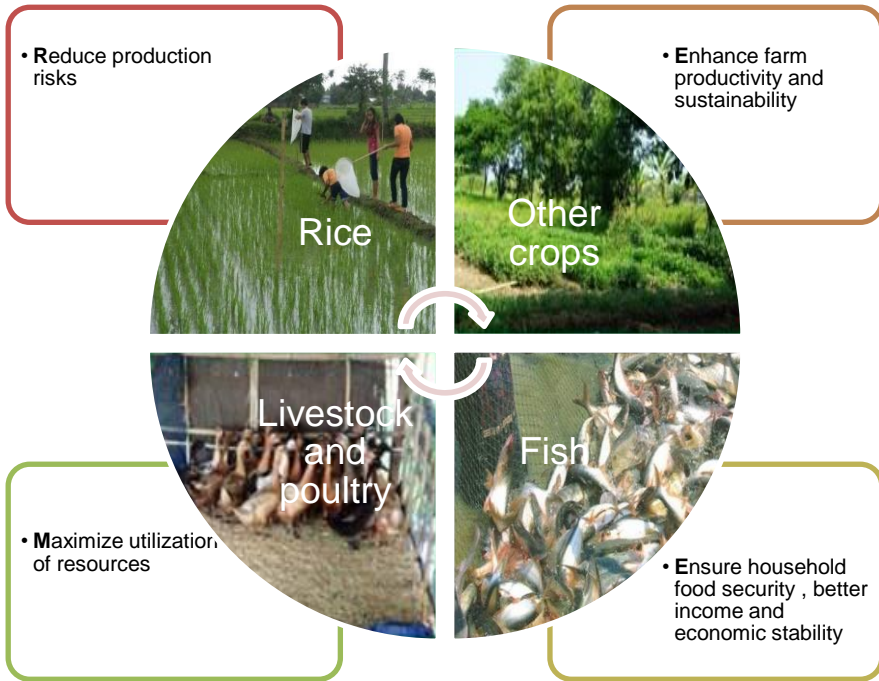
“*Palayamanan*” – prosperity with rice- based farming

- **Palay** = rice; **Yaman** = prosperity; wealth
- Involves a synergistic mix of farming enterprises, with rice as the base crop and combined with other crops (vegetables, fruit trees), fish, livestock and waste management





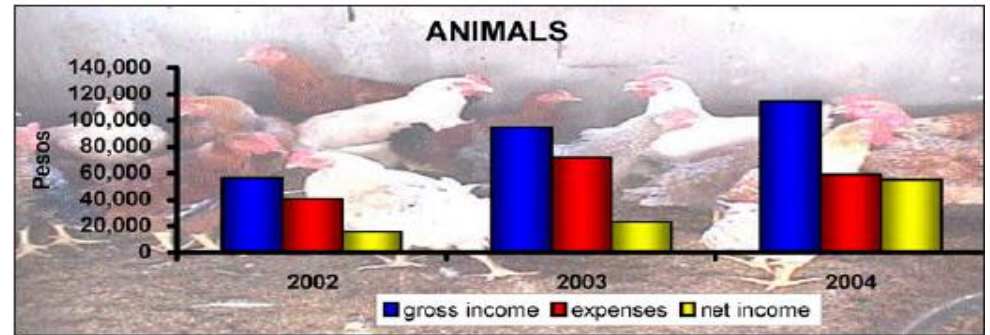
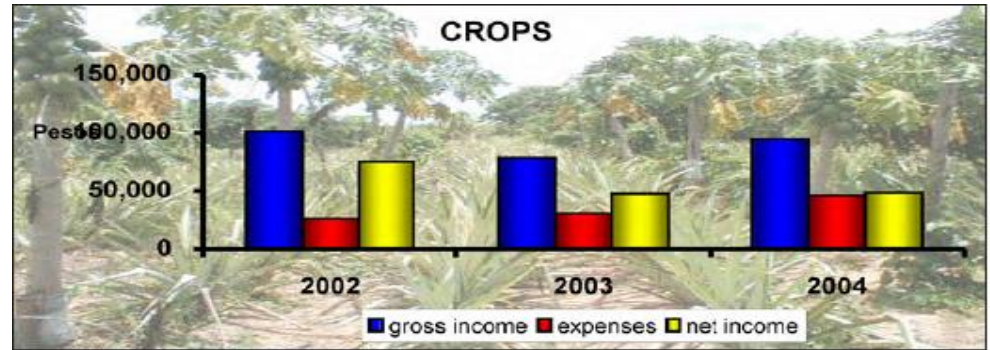
- *Palayamanan* approach
 - **Gradual** integration of crop, livestock, fish and perennial trees depending on the capacity of farmers and market demands
 - Maximum use of farm biomass residues + microbial technology for nutrient management and livestock feed
 - Natural biological control for pest management; duck or rotary weeder for weed control
 - Value adding (mushroom production, biodegradable seedling trays and pots)



Safe and diverse food supply

Palayamanan Benefits Producers and Consumers

An economic analysis of the *Palayamanan* farm can generate more than Php 100,000 net income per year; 5x more income than growing two seasons of rice in a year



Adaptive trials on the *Palayamanan* components
PhilRice Experiment Station (2002-2004)



Component	Area (m ²)	Gross sale (PhP)	Production cost (PhP)	Gross margin (PhP)
Rice	1,326	24,625.89	9,415.44	15,210.45
Duck (mallard) (layer ducks, drakes, eggs)	123	61,436.00	40,146.40	21,289.60
Vegetables (cucurbits, leafy veg, okra, eggplant)	292	31,481.75	1,806.75	29,675.00
Total	1,741	117,543.64	51,368.60	66,175.05
Income/m ²				38.01

Palayamanan rice-duck system (PhilRice, 2022)

Enabling mechanisms for organic farming



National Organic Agriculture Program (NOAP)

- Philippine government set up the Task Force for Organic Agriculture (2000)
- Organic Agriculture Act enacted (2010)
- National Organic Agriculture program (2012) = 2% of the DA annual budget
- Focus on agribusiness and capitalized commodity producers
- 3rd party certification ; OCCP and NICERT – national certification bodies (2016)
- Participatory guaranty system (PGS) for organic crops (2020)

Masaganang Agrikultura, Maunlad na Ekonomiya!

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Agri dep't sees organic agriculture as a way forward



<https://www.da.gov.ph/agri-dept-sees-organic-agriculture-as-a-way-forward/>

OCCP – Organic Certification Center of the Philippines
NICERT – Negros Island Certification Service



MASIPAG

- Network of 30,000 smallholder farmers (petty commodity and subsistence); focused on household food and domestic market
- Participatory breeding
- Training on organic management and practices and farm diversification
- Embraced the Participatory Guaranty System (PGS) since 2000 allowing market access and premium rice price



Photo source: Rappler

Scaling *Palayamanan*



The Meliton Integrated Organic Farm

- 3 ha farm in Banga, Aklan province
- Embraced the Palayamanan approach in 2016
- Member of the Organic Farmers Association of Aklan (OFAA)
- Learning site for integrated organic farming system to train more farmers



Farm Video: <https://www.youtube.com/watch?v=PgM1EA-z0dk>

Component	Gross Income (Php)	Production Cost (Php)	Net Income (Php)	Return on Investment
Rice (0.50)	60,000	30,000	30,000	100%
Other crops (0.4)	137,000	67,000	79,000	117%
Fish and other aquatic products (0.05)	28,000	10,000	18,000	180%
Livestock and poultry (0.05)	65,000	30,000	35,000	116%
Total (1.0 ha)	290,000	139,000	162,000	

Partial cost and return analysis per ha/yr of the Meliton integrated organic farm, 2022

1 ha conventional rice net income = Php 40k to 50k/ha/yr

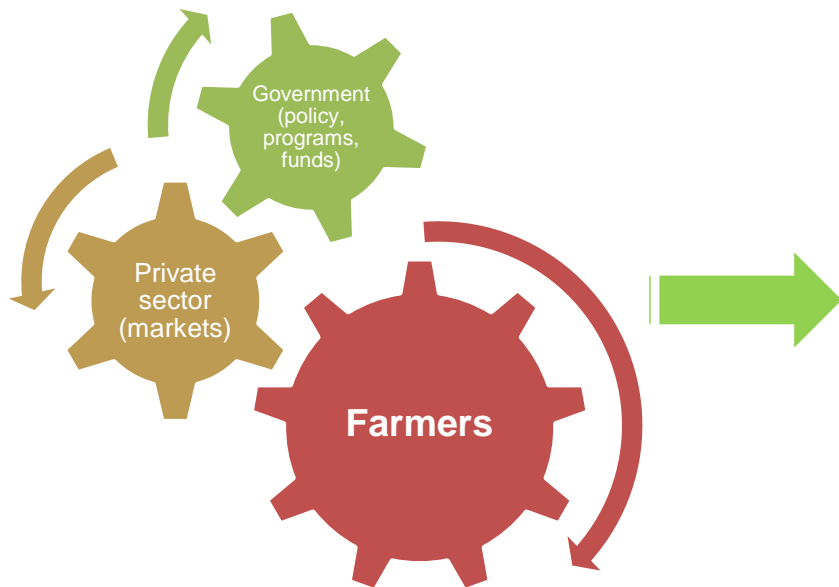


Challenges of smallholder OA farmers

- 3rd party certification cost
- Integration of smallholder organic farms to access local (eg: Boracay Island) and export market



Palmy Meliton is the current President of the OFAA



A supportive enabling environment is required to scale Palayamanan

Palayamanan Plus Components

Sorjan cropping system

Rice-duck-vegetable production

Dairy buffalo integration

Leafy vegetable production with net

Continuous multi-vegetable production

Rice production

Vertical hydroponic garden

Mushroom production

Vermicompost production

Kwebo

ATI Central Office | - Department of Agricul... < >

Capability Enhancement for Farmers: Training on Rice-Based Farming System "Palayamanan"

Kitaotao Rice Farmers participate in Palayamanan Training | ATI in Northern Mindanao

- **NOAP Services for Farmers**
 - Organic Agriculture Livelihood projects – business integrator or organic farms
 - Capacity development
 - Participatory guaranty system
 - Scholarships for young farmers
 - Organic seed centers
 - Social credit
 - Policy development
 - Knowledge and advocacy
 - Marketing assistance
 - Research for development and extension



Source: <https://noap.da.gov.ph/>



- NOAP and MASIPAG to collaborate towards empowering farmers and expanding the OA industry





There is a thin layer of soil that separates a farmer from
POVERTY to PROSPERITY...