FACTORS AFFECTING THE ADOPTION OF ORGANIC RICE FARMING

The Case of Farmers in M'lang, North Cotabato,
Philippines

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OUTLINE

- The problem/ background
- Rationale/ objectives of the study
- Methods
- Results
- Conclusion

- The industry of organic rice in the Philippines is relatively new.
- In 2005, area devoted to organic rice production is at 14,209 ha (0.35%) managed by around 35,000 farmer adopters.
- Initially, the motivation for the adoption of organic farming was towards the achievement of poverty alleviation among marginalized farmers in the country and was dedicated to the personal consumption of farming households¹
- Rice farmers' awareness about organic farming is only around low to medium and the major sources of information are NGOs and private institutions. Therefore lack of access to these third party entities is a challenge and a barrier in terms of the adoption of organic farming²

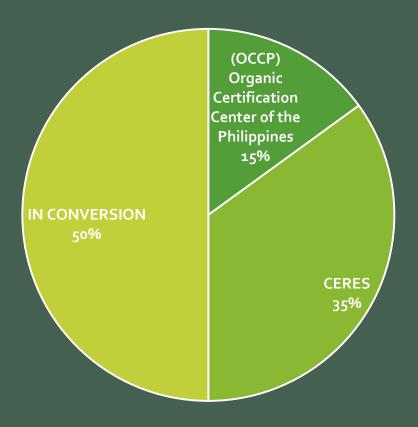
¹Alfon, H., Redona, E., 2005. A Preliminary study on The Philippine Organic Rice Subsector.

² Piadozo, M. E., Lantican, F. A., Pabuayon, I., Quicoy, A., Suyat, A., Maghirang, P., 2014. Rice Farmers' Concept and Awareness of Organic Agriculture: Implications for Sustainability of Philippine Organic Agriculture Program. Journal of ISSAAS, 20(2), 142-156.

In M'lang North Cotabato, a significant institution that Don Bosco Multipurpose Cooperative (DBMPC) is a major distributor of organic rice with retail outlets all over the country, some for the export market, but mostly in Mindanao. DBMPC is one of the most noteworthy NGOs that operate in Mindanao which provides production and marketing support to their farmerpartners. The coop is known for its strict observance of a bio-dynamic farming system, particularly organic¹ (Daño & Samonte, 2007).

¹Daño, E., Samonte, E., 2007. State of the Rice Industry in Mindanao. Rice Watch and Action Network and Food Sovereignty Watch - Mindanao.

CERTIFICATIONS OF DBMPC FARMS



Recently, DBMPC has been experiencing problems on shortage of supply and one of the ways to address this is to increase the number of suppliers. Moreover, the need to adopt more environmentally friendly farming practices is very evident for the achievement of sustainability.

OBJECTIVES

- this study attempts to identify and examine the factors that could possibly affect the adoption and non-adoption of organic farming among rice farmers in M'lang, North Cotabato, Philippines
- Help in the creation of policies and interventions in order to increase adoption rate of organic farming and help achieve sustainability

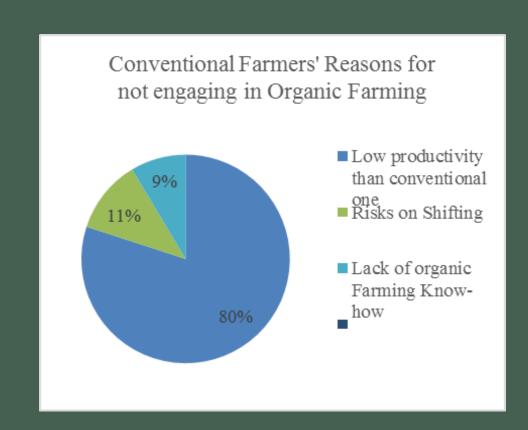
METHODS

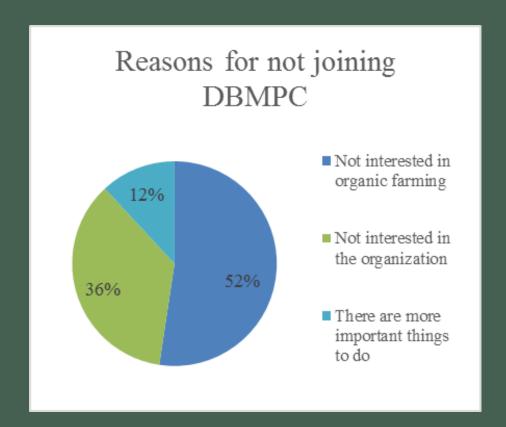
- Data and Sampling:
 - survey using stratified random sampling and structured questionnaire among rice farmers in M'lang.
- Probit regression:
 - Used to identify the factors that significantly affect the adoption organic rice farming

SIGNIFICANT FACTORS

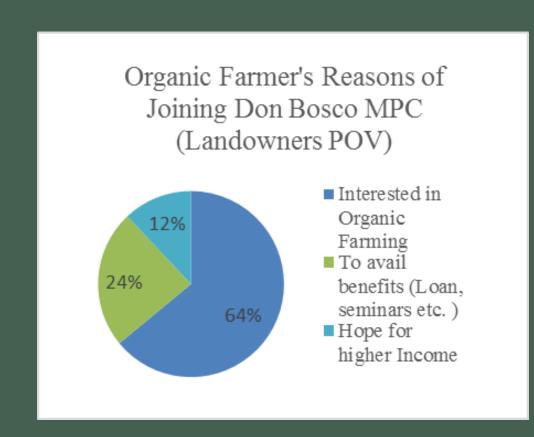
Probit Regression	Coef.	P> z	Marginal Effects	
Gender	-3.850	0.002	-0.218	**
Level of Education	1.847	0.002	0.105	**
Years in rice farming	0.257	0.015	0.015	*
Farm area (ha)	-5.057	0.007	-0.287	**
Yield (kg) per hectare (dry)	-0.002	0.019	-1.1E-04	*
Cost per hectare	-4.3E-04	0.008	-2.5E-05	**
legend: * p<.05; ** p<.01; *** p<.001	Wald chi ² (11) = 29.61	Pseudo R ² = o	.760 Prob > chi² = 0.002	

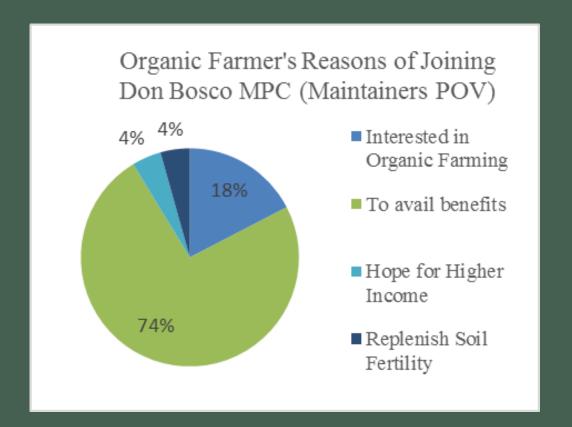
CONVENTIONAL FARMERS' PERSPECTIVE





ORGANIC FARMERS' PERSPECTIVE





CONCLUSION

- Sustainability of rice production could possibly be achieved through the adoption of organic farming practices.
- Results indicate that females, farmers with higher education levels, those with longer experiences in rice production, small landholders, and low cost per hectare have higher likelihoods in adopting organic farming. These factors were seen to be significant by other related studies as well.
- In order to understand and influence the adoption decisions of the farmers in the creation and progression of programs by government agencies, the factors above could be considered.

CONCLUSION

- Ultimately, there is a great need to provide incentives for the farmers to adopt organic farming and for consumers to choose environmentally superior products such as organic.¹
- Currently, domestic consumers are just beginning to know and consume organic products.
 Although, at least in Luzon, most consumers have shown willingness to pay for price premiums for eco-labelled rice products at about 10-20%²
- However, current policies in the country are leaning towards and are favoring the achievement of rice self-sufficiency.
- The importance of third party institutions which provide extension services to farmers in affecting the adoption decision of the farmers was also acknowledged 3,4,5,6,7,8
- ¹Tilman, D., Cassman, K., Matson, P., Naylor, R., Polasky, S., 2002. Agricultural sustainability and intensive production practices. Nature, 418, 671-677. doi:10.1038/nature01014
- ² Digal, L. N., Balgos, C. Q., 2016. Willingness to Pay for Ecolabelled Products: the Case of Traditional Rice Varieties in the Philippines. Institute of Foods Marketing Research Symposium 2016.
- ³ Asadollahpour, A., Najafabadi, M., Hosseini, S., 2014. Factors Affecting the Conversion to Organic Farming in Iran: A Case Study of Mazandaran Rice Producers. Science International (Lahore), 26(4), 1665-1670.
- 4 Brown, E., Del Rosario, B., Aganon, C., 2015. The role of market intermediaries in promoting organic rice production. Food and Agriculture Organization of the United Nations.
- ⁵Chouichom, S., Yamao, M., 2010. Comparing opinions and attitudes of organice and non-organic farmers towards organic rice farming system in north-easter Thailand. Journal of Organic Systems, 5(1), 25-35.
- ⁶Genius, M., Pantzios, C., Tzouvelekas, V., 2006. Information Acquisition and Adoption of Organic Farminf Practices. Journal of Agricultural and Resource Economics, 31(1), 93-113.
- 7Rana, S., Parvathi, P., Waibel, H., 2012. Factors Affecting the Adoption of Organic Pepper Farming in India. Conference on International Research on Food Security, Natural Resource Management and Rural Development.
- ⁸ Yamota, J., Tan-Cruz, A., 2007. Farmers' Adoption of Organic Rice Farming in Magsaysay, Davao Del Sur: Factors and Practices. 10th National Convention on Statistics.

CONCLUSION

 Therefore, in order to increase the adoption of organic rice farming and escalate the environmental sustainability, there is a need to consider the above mentioned factors in policy making. The provision of incentives could also be explored.
 Moreover, the importance of the NGOs and private institutions must be acknowledged.

THANKYOU