

Research article

# Implementing Organic Farming among the Iranun Communities in Lanao del Norte, Philippines

<sup>1</sup>Cecilia C. Basser and <sup>2</sup>Sonnie A. Vedra

<sup>1</sup>Graduate Student, <sup>2</sup>Professor, School of Graduate Studies  
Mindanao State University at Naawan  
9023 Naawan, Misamis Oriental, Philippines  
E-mail: vedrasonnie@gmail.com



OPEN ACCESS

This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/).

---

## Abstract.

Organic farming has traditionally been practiced by the Iranun communities in Southern Philippines. Massive introduction of agrochemicals and inorganic fertilizers in recent years made farmers extensively used chemical-based farming. A paradigm shift is done towards organic farming due to emergence of a growing number of health conscious consumers in the food market. As such, a study was conducted to describe the extent of organic farming among the indigenous Iranun communities in Lanao del Norte. Key informant interviews, in-person interview using survey questionnaires and focused group discussions were done among the four barangays inhabited by the Iranun communities. Results revealed that farmers were hesitant to accept organic farming technology because harvest of crops is slow and could not immediately support the economic needs of the families concerned. Although organic farming was inherited and passed on to various generations, the new generations, however, need to be persuaded to go back to organic farming as it used to be. Continuing information, education and communication strategies were conducted to enhance implementation of organic farming among the Iranun communities. **Copyright © WJEAS, all rights reserved.**

**Keywords:** organic farming, sustainable agriculture, Iranun, Lanao del Norte, Philippines

---

## Introduction.

Over the past 50 to 60 years, the focus of agricultural development and research has mainly been on maximising yields. Many farmers opted to farming practices that are more environmentally sound, attain long-term sustainability through integrated pest management, integrated crop management, low input agriculture, permaculture, biodynamic farming, precision agriculture and organic farming (H. Malek-Saeidi et al., 2012).

Organic agriculture has traditionally been practiced as a way of life by the indigenous people in the Philippines. Philippine organic production area was reported to be 52,546 ha in 2009 and employing around 70,000 producers/farmers (Maghirang et al., 2010). Among the organic crops grown for domestic uses are rice, maize,

vegetables, fruits and root crops. These are generally produced by small-scale farmers under more diversified farming systems and are integrated with a few heads of livestock (e.g. pigs, goats, carabaos, cows, chickens or ducks). This is due to an emergence of a growing number of health conscious consumers in the food market (Colting and Tagarino, 2008). Recently, sustainable agriculture appears to be the most popular and government-supported farming programs. It is an integrated system of plant and animal production practices having a site-specific application that will cover the long term supply of human food and fiber needs, enhance environmental quality and natural resource-based agricultural economy. It is the most efficient use of non-renewable resources and on-farm resources and integrating the natural biological cycles and controls, sustain the economic viability of farm operations, and enhance the quality of life for farmers and society as a whole (Maghirang et al., 2010). In terms of health and wellness, it transforms agricultural production from quantity-driven to quality-driven. Organic management has become one of the most popular sustainable strategies to produce agricultural goods but reduce negative environmental effects of intensive agriculture such as biodiversity decline (Zechmeister, 2003; Whittingham, 2011).

Although several health-conscious individuals are increasing, acceptance of organic farming technology is still at its slow pace because of the unavailability of the source and the amount of materials needed to produce a ton of organic matter needed in a 1 hectare farm. This is true in areas of Lanao del Norte. Hence, this study was conducted to describe the extent of knowledge, attitude and perception of organic farming among the Iranun Muslim communities of Lanao del Norte.

### Materials and Methods.

In-person interview using survey questionnaires was used involving a total of 88 respondent farmers in four barangays of Pikalawag, Dableston, Dangolaan and Sugod, Sultan Naga Dimaporo, Lanao del Norte. The data gathered were enhanced through key informant interviews and focused group discussions among the leaders of the communities (Figure 1).



**Figure 1.** Interviews conducted among the farming communities in Lanao del Norte: Barangays Pikalawag, Sugod, Dableston and Danglaan (clockwise).

## Results and Discussion.

The socio-demographic profile of the Iranun farming communities include full-time farmers (65.91%), who planted rice and corn with other crops and vegetables. This is to economically-support and add income for the family. Male respondents at 62.5% were members of a farmer's association while women's organizations listed memberships of the women respondents. Besides farming, some were engaged in agribusiness, particularly among the women. Farmers were renting the farmlands (77.27%) (Table 1).

**Table 1.** Socio-demographic profile of Iranun communities relative to organic farming development in Lanao del Norte.

Demographic Profile	Frequency (%)		
	Male	Female	Total
Gender	58 (65.91)	30 (34.09)	88 (100)
Legal Status			
Married	59 (67.05)	29 (32.95)	88 (100)
Age			
30-34	25 (28.41)	14 (15.91)	39 (44.32)
35-39	20 (22.73)	29 (32.95)	49 (55.68)
Educational Attainment			
Elementary graduate	5 (5.68)	5 (5.68)	10 (11.36)
Secondary level	23 (26.14)	12 (13.64)	35 (39.77)
Secondary graduate	28 (31.82)	15 (17.05)	43 (48.86)
Occupation			
Fulltime farmer	41 (46.59)	17 (19.32)	58 (65.91)
Part-time farmer	16 (18.18)	14 (15.91)	30 (39.09)
Number of children			
1 to 2	6 (6.82)	5 (5.68)	11 (12.5)
3 to 4	34 (38.64)	18 (20.45)	52 (59.09)
5 to 6	18 (20.45)	7 (7.95)	25 (28.41)
Sources of livelihood			
Farming	53 (60.23)	27 (30.68)	80 (90.91)
Business		8 (9.09)	8 (9.09)
Number of children sent to school			
1 to 2	29 (32.95)	16 (18.18)	45 (51.14)
3 to 4	26 (29.55)	17 (19.32)	43 (48.86)
Membership in Organization			
Farmers' Association	55 (62.5)	10 (11.36)	65 (73.86)
Women's Organization		23 (26.14)	23 (26.14)

In terms of farming, the respondents still anchored on the use of inorganic fertilizer (73.86%). This aimed to increase their farm production to have income at shorts period of time. Use of inorganic inputs in farm production was just an offshoot of recent farming technologies apart from the organic farming practiced by their forefathers. Few of the farmers (26.14%) tried and used organic fertilizer in their farms. Among the respondents using organic fertilizer, most of them (17.05%) opted to use rice straw compost due to its availability and proximity to their farmlands (Table 2). This reliance on external inputs is extremely reduced while maximum use is made of farm-derived resources and natural products and processes are employed for plant nutrition and pest control (Lampkin et al., 1999).

For those who opted inorganic fertilizer, they used nitrogen sources such as ammonium sulphate and urea. Application of synthetic fertilizers in the country from 1961 to 2005 had increased by 1000%, but the yields of rice and maize had increased only by 200 and 280%, respectively. Similarly, the use of pesticide had increased by 325% from 1977 to 1987, but rice yield had increased only by 30% (Tirado and Bedoya, 2008). The main reason of the

farmers to use chemicals in farming is their dependency and reliance to it to hasten harvest in short time with a hope of increasing yield and income.

In terms of pesticide usage, majority (69.32%) still used inorganic pesticides to minimize, if not, control damage of pests in their farms. This is to eliminate pest infestation to crops at short periods of time. Some of the farmers ventured to use organic pesticides (19.32%) such as chilli/ginger mixtures. However, these did not thoroughly proven to control pest infestations. The fact that some attempted to use organic pesticides is an indication that their indigenous practices of organic farming still prevails. However, new farming technologies masked the indigenous farming systems and able to persuade farmers to do such new practice.

Organic farming is still in a slow process of paradigm-shift among the Iranun communities, although historically, it is being used among their forefathers. Attempts to reinitiate organic farming to these farming communities put so much challenge to the local leaders, and progress is observed to those farmers who opted to use organic means of farming. Recent information derived from media provides consumers with quality products that are healthy, have natural flavours and fragrances, and contain no harmful residues while contributing to maintain and enhance soil fertility and biodiversity. The organic industry has been primarily in the hands of the private sector, non-governmental organizations (NGOs), and people organizations or cooperatives (Maghirang et al., 2010).

**Table 2.** Farming profile of Iranun communities in Lanao del Norte.

Status of Farming	Frequency (%)		
	M	F	Total
Tenurial farming status			
Sharehold Tenant	15 (17.05)	5 (5.68)	20 (22.73)
Leasehold Tenant	44 (50.0)	24 (27.27)	68 (77.27)
Kinds of Seeds planted			
Certified seeds	58 (65.91)	30 (34.09)	88 (100)
Kinds of crop planted			
Rice	30 (34.09)	13 (14.71)	43 (48.86)
Corn	30 (34.09)	15 (17.05)	45 (51.14)
Aside from rice and corn, other crops planted			
Vegetables	55 (62.5)	33 (37.50)	88 (100)
Kinds of fertilizer used			
Organic fertilizer	16 (18.18)	7 (7.95)	23 (26.14)
Inorganic fertilizer	43 (48.86)	22 (25.0)	65 (73.86)
If using organic fertilizer, what kind?			
Rice straw compost	9 (10.23)	6 (6.82)	15 (17.05)
Vermicast	4 (4.55)	4 (4.55)	8 (9.09)
Animal manure	4 (4.55)	4 (4.55)	8 (9.09)
If using inorganic fertilizer, what kind?			
Ammonium sulphate	24 (27.27)	11 (12.5)	35 (39.17)
Urea	20 (22.73)	14 (15.91)	34 (38.64)
Pesticides used			
Organic pesticides	15 (17.05)	12 (13.64)	27 (30.68)
Inorganic pesticides	44 (50.0)	17 (19.32)	61 (69.32)
If using organic pesticides, what kind?			
Chilli/ginger	11 (12.5)	6 (6.82)	17 (19.32)
Panyawan	6 (6.32)	4 (4.55)	10 (11.36)

## Conclusions and Recommendations.

Organic farming in Iranun communities is still in a low process, yet progress is observed, particularly to those farmers who opted to use it. Practice of chemical-based farming is driven by the urgent need of income and yield from farms due to economic needs. Information from media caused some farmers to apply organic farming. The

reason is an outcome of organic agriculture techniques, which is couples with the farmers' motivation, sharing of experience in peer groups and successive learning, and the introduction of new crops. This in turn, results to the beginning of a whole chain of organic farming innovations among the Iranun communities.

It is therefore recommended that personnel of the Department of Agriculture and Local Government Units (LGU) should exert much effort in imparting their knowledge, skills and expertise in persuading the Iranun farmers to adopt the organic farming technology. This can be achieved in stressing the human health benefits and the conservation of the associated flora and fauna in their farmlands. Besides, promotion of soil fertility, biodiversity conservation (e.g. native flora and fauna), and production methods adapted to the locality and avoidance of chemical inputs can also be enhanced through improved IEC strategies.

### **Acknowledgments.**

The authors are grateful for the support of Barangay Chairmen of Barangay Pikalawag, Dangolaan, Dableston and Sugod, Sultan Naga Dimaporo, Lanao del Norte. They are also grateful to the full cooperation of the farmer-respondents in diligently answering the questionnaire, interviews and group discussions.

### **References:**

- [1] Colting, R. D. and D. D. Tagarino. 2008. Status and Agribusiness Potentials of Organic Agriculture in the Philippines. *J. ISSAAS*, 14(1): 25-32.
- [2] H. Malek-Saeidi, K. Rezaei-Moghaddam, and A. Ajili. 2012. Professionals' Attitudes Towards Organic Farming: The Case of Iran. *J. Agr. Sci. Tech.*, 14: 37-50.
- [3] Lampkin, N.H. and M. Measures eds (1999). *Organic farm management handbook*. Organic Farming Unit, Welsh Institute of Rural Studies University of Wales, Aberystwyth, Organic Advisory Centre, Elm Farm Research Centre (Newbury).
- [4] Maghirang, R. G., R. De La Cruz and R. L. Villareal. 2010. How sustainable is organic agriculture in the Philippines? *Trans. Nat. Acad. Sci. & Tech. (Philippines)* Vol. 33 (No. 2), 289-321. ISSN 0115-8848
- [5] Tirado, R. and D. Bedoya. 2008. Agrochemicals use in the Philippines and its consequences to the environment. 12pp. [www.greenpeace.to/.../GPSEA\\_agrochemical-use-in-the-philip.pdf](http://www.greenpeace.to/.../GPSEA_agrochemical-use-in-the-philip.pdf).
- [6] Whittingham M. J. 2011. The future of agri-environment schemes: biodiversity gains and ecosystem service delivery? *J. Appl. Ecol.* 48, 509–513.
- [7] Zechmeister HG, Schmitzberger I, Steurer B, Peterseil J and Wrбка T. 2003. The influence of land-use practices and economics on plant diversity in meadows. *Biol. Conserv.* 114, 165–167.