



RESEARCH PAPER

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Assessment of agricultural assistance for smallholder farmers with their issues and concerns

Horacio Factura^{1*}, Francis Thaise A. Cimene¹, Ian Mark Q. Nacaya²

¹Center for Inclusive Development Studies, University of Science and Technology of Southern Philippines (USTP)

²City Government of Cagayan de Oro

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Abstract

Globally, smallholder farmers only have less than 2 hectares of land but they are crucial to food security. The problem is, they always remain poor. Using focus group discussion (FGD), the study investigated issues and concerns. Results showed that the farmers have received a number of various kinds of assistance from the government which provided them with benefits however they also have sentiments about some matters. The study found out that they are highly incapable in addressing many issues surrounding them. Improving their agricultural productivity and household-level income are the main factors to reducing poverty.

* Corresponding Author: Horacio Factura ✉ horacio.factura@ustp.edu.ph

Introduction

The pillars of food and nutrition security must be addressed: availability, access, utilization and stability to ensure that the basic human right to food is met for everyone (Giller *et al.*, 2021). This is the challenge set by Sustainable Development Goal (SDG) 2: End hunger, achieve food security and improved nutrition, and promote sustainable agriculture (United Nations, 2015). More than 80% (475 million) of the world's farms operate on less than 2 hectares of land characterized as smallholders (Fan and Rue, 2020). These farms account for only 12% of the world's farmland but they produce some of the major commodities and provide more than 70% of the food calories to people living in Asia and sub-Saharan Africa (Samberg *et al.*, 2016). The term "smallholders" includes small farmers who own or control the land they farm and those who do not (WIEGO, 2022). They produce relatively small volumes on relatively small plots of land and are generally less well-resourced than commercial-scale farmers. Most of them depend on family labour and/or may hire workers and oftentimes they are vulnerable in supply chains and are usually considered part of the informal economy.

Small farms face numerous challenges especially in terms of access to essential factors of production, such as credit, inputs (seeds, fertilizers, pesticides), information and production technologies, in addition to poor access to output markets (Pingali, 2012). The Philippine agricultural sector contributes 20% of gross national domestic product and 37% to the national labour force (Habito, 2012). Around 4.5 million farms (FAO, 2006) directly support 25 million Filipino farmers and families (Bureau of Agricultural Statistics, 2015). Many of them are poor smallholders who are mostly found in rural areas with poverty rates as high as 70% (AusAID, 2009). Therefore, the government should include them in prioritization.

Poverty alleviation programs become effective and successful only when they are custom-tailored to the needs of specific farming communities. Baseline information are necessary in developing solutions

with multi-disciplinary approaches which are key for project sustainability. Assessing project outcome provides clarity of areas that need to be improved for delivering better public services. This project was a result of the collaboration between the University of Science and Technology of Southern Philippines (USTP) and the City Government of Cagayan de Oro (CDO), Philippines.

The main objective of this study was to assess the agricultural assistance the small farmers in CDO received from the government over the past few years and the second was to know their issues and concerns. CDO is a coastal highly urbanized city (Figure 1) located in Northern Mindanao (Region 10) and it is the capital of the region. It has a land area of 412.80 square kilometers with a total of 80 barangays (districts). Of the city's agricultural lands, more than half or 17,488 hectares in 26 barangays are existing farm areas devoted to the production of various food and commercial crops with a workforce of more than 15,000 farmers.

Materials and methods

In 2020, the Agricultural Productivity Operations Office of the city government organized farming communities in 5 different barangays for the conduct of this study. The barangays were designated using alphabet letters: A) Balubal, B) Tignapoloan, C) Mambuaya, D) Canitoan and E) Pagatpat. In every barangay, the researchers employed the qualitative approach and FGD was used as the main tool for data collection. Farmers were interviewed as a group using set of questions where anyone was free to answer. Researchers used recording devices including video cameras in gathering responses. It elicited narrative information underlying the participants' experiences and understanding. Responses were encoded and interpreted accordingly and the data gathered were grouped and analyzed. Researchers attempted to make sense of, or interpret, social reality in terms of the meanings the participants ascribed to it. Thematic interpretation was adopted as the main interpretive method.

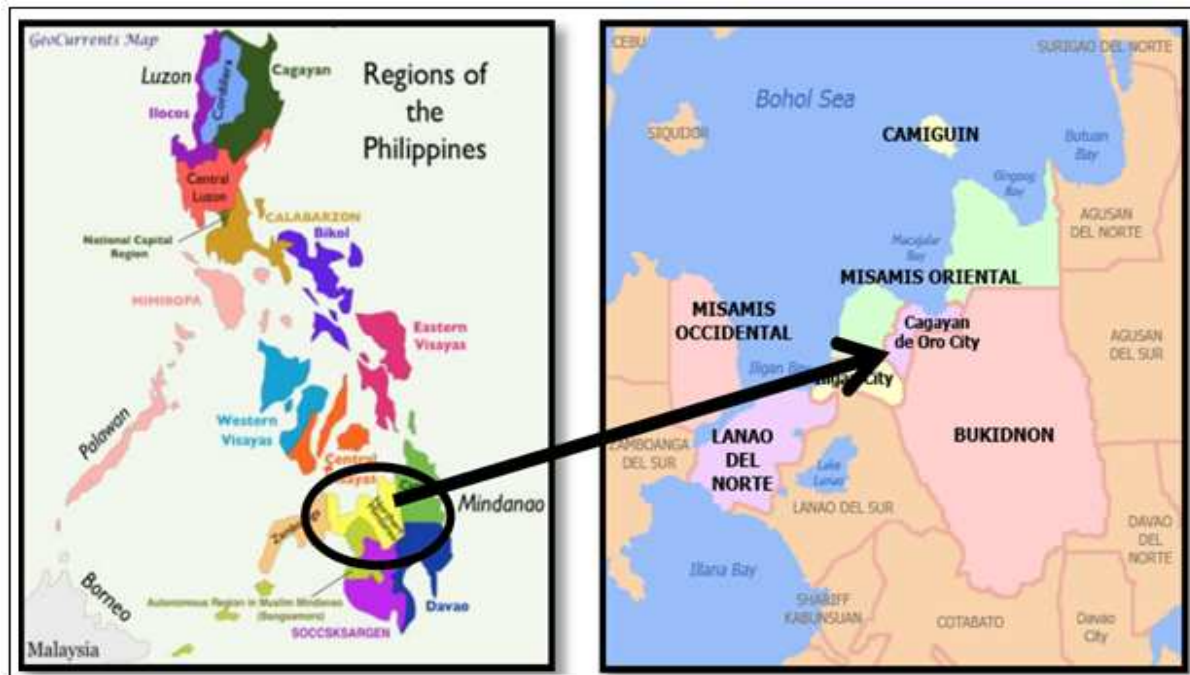


Fig. 1. Location of CDO in the Philippines (Adapted from Doczi, 2015).

Participants were assured of anonymity and were required to sign the Free Prior Informed Consent form, indicating therein that the data obtained from the discussions will be used for research purposes only.

Results and discussion

A total of 58 farmers (Table 1) participated in the study and 62% were women because during the time of the study their husbands were out working. Almost 90% were married. More than 60% were 51 years old and above and almost 38% were between 41 and 50 years of age. Majority of them (63.8%) only have less than a hectare of land for farming and 31% have been in farming for 11 to 20 years already.

The farmers have formed their own organizations namely: A) Balubal Integrated Social Forestry Farmers Association, C) Paradise Village CARP Beneficiaries Farmers Irrigators Association, Agusan Reform Beneficiaries and Mambuaya Agrarian Reform CARP beneficiaries, D) Canitoan Farmers Multi-purpose Cooperative and E) Pagatpat Cagayan de Oro Farmers Association. Any form of input coming from the government are channelled through their organizations facilitated by their respective local government unit (LGU). According to CDO's 2019-

2022 City Agricultural Development Plan, despite rapid urbanization and unprecedented growth in trade and commerce, agriculture remains an integral part of the city's economic activities.

The study found out that over the years the government has done a lot of various kinds projects (Table 2) for the small farmers. The agricultural assistance have provided them with aid and opportunities for food production and income generation. The farmers testified that the assistance have helped them economically as well as in farming operations. With additional income, some of them were able to send their children to school. In swine production, almost all beneficiaries reached 4 production cycles with 10-18 piglets per cycle.

The livestock dispersal program not only provided them with animals but also necessary trainings in handling ruminants. Those who planted sweet potato seedlings have made several harvests already. Seeds of fruits and vegetables including fertilizers brought higher farm productivity. Irrigation inputs saved the crops during dry season. Modular trainings on vegetable production increased and improved their knowledge and skills respectively.

Table 1. Socio-demographic profile of participants.

	A	B	C	D	E	Frequency	Percent
<i>Sex</i>							
Male	0	0	6	11	5	22	37.9
Female	8	14	6	2	6	36	62.1
Total	8	14	12	13	11	58	100
<i>Age (year)</i>							
0-20							
21-30	1	0	0	0	0	1	1.7
31-40	0	0	0	0	0	0	0
41-50	5	7	2	3	5	22	37.9
51 & above	2	7	10	10	6	35	60.4
Total	8	14	12	13	11	58	100
<i>Civil status</i>							
Single	0	0	3	0	1	4	6.9
Married	8	14	8	12	10	52	89.7
Widowed	0	0	0	0	0	0	0
Separated	0	0	1	1	0	2	3.4
Total	8	14	12	13	11	58	100
<i>Number of children</i>							
None	1	0	2	0	1	4	6.9
1-2	2	3	3	5	1	14	24.1
3-4	3	9	3	3	8	26	44.9
5 & above	2	2	4	5	1	14	24.1
Total	8	14	12	13	11	58	100
<i>Farm size</i>							
Less than a hectare	4	8	12	5	8	37	63.8
1-1.9 hectare	2	2	0	0	0	4	6.9
2 hectares & above	2	4	0	8	3	17	29.3
Total	8	14	12	13	11	58	100
<i>Years farming</i>							
1-10	6	5	2	1	3	17	29.3
11-20	0	6	4	5	3	18	31
21-30	1	1	4	3	3	12	20.7
31-40	1	2	2	3	2	10	17.2
41 & above	0	0	0	1	0	1	1.7
Total	8	14	12	13	11	58	100

Despite the benefits, they also expressed sentiments. According to them, the availability of inputs like seeds and fertilizers is sometimes not timely with planting season. Delayed cropping causes negative impact on yield. Limited supply of inputs is a common dilemma because not each farmer could be provided. In any given time, the government can only help a few number of people.

The responsibility in utilizing the limited resources is handed over to the farmer organizations and the challenge now is how to maximize the supply for all members.

Farm-to-market roads are mainly built for farmers to ease transport of goods. However, a group of farmers reported that huge trucks carrying loads of quarry products damaged their road. Market access is another issue. Many studies have highlighted various barriers to market access for small farmers around the world (Hazell and Rahman, 2014). These include lack of market information; poor bargaining power and fragmented production; poor infrastructure; limited essential financial, physical and human capitals; and limited producer-buyer relationship and trust (Heijden and Vink, 2013). Securing market access for agricultural produce has been identified as

one of the most important strategies towards rural development and poverty alleviation (Fischer and Qaim, 2012).

In the Philippines, smallholder farmers not only contend with community poverty, but are also disconnected from the markets and have few opportunities for livelihood improvement (Murray-Prior and Rola-Rubzen, 2011). Many rely on traders and middlemen to organize the harvest, transport their produce and sell to the markets (Oakeshott, 2016). Smallholder growers are paid according to the daily market prices and these market prices however are volatile (Notarte, 2011a). Most of the time they

only end up earning close to the break-even point but rarely becoming highly profitable.

Land conversion was also discussed as a major issue. Areas which used to be agricultural were converted into residential and commercial classifications with new housing projects and business establishments. Decreasing number of areas for agriculture due to urbanization has clearly threatened farmers in CDO affecting them physically and economically (Factura *et al.*, 2022). Small farms in Asia are getting smaller by the decade (Rigg *et al.*, 2016). Smallholdings in Asia today are thought to be half the size they were in the 1960s and 1970s (Hazell and Rahman, 2014c).

Table 2. Agricultural assistance received from the government.

Agro-reforestation project - Integrated Natural Resources and Environmental Management	
A	Corn seeds
	Swine production
B	Livestock (cow, carabao, goat) dispersal
	Fruit and vegetable seeds
	Bitter gourd seedlings and organic fertilizer (chicken dung)
	Water pumps
C	Financial assistance
	Bottom up budgeting (pig dispersal)
	National Greening Program
	Vegetable seeds and fertilizers
D	Water pumps, hose for irrigation and sprayers
	Trainings on food safety and agri-business
	Seeds and fertilizers
	Modular trainings on vegetable gardening
E	Farm Business School
	Swine production
	Water pumps

The participants of this study emphasized the importance of consultation process between them and any government or private agency before implementing any project that would directly affect livelihood. They also stressed the reasons of involving them in the development process as stakeholders. In a book, Factura *et al.* (2021) described in details the essential and practical steps towards productivity and the use of the whole-of-community approach in working with the small farmers. The book emphasizes the critical role of agricultural technicians in

assisting, facilitating and supervising the farmers from field production towards marketing of products. The limited number of agricultural technicians to handle a lot of farming communities is also a challenge in the part of the government.

Despite the key role smallholder farms play in achieving global food security and nutrition, they are often neglected by development policy and they have rarely enjoyed the policy and institutional support necessary to allow smallholders and rural economies

to thrive (Fan and Rue, 2020). Their characteristics and challenges vary according to geography, the influence of historical institutions and the political and socio-economic conditions in which they are situated and therefore, addressing their concerns and designing potential solutions to address them will also vary within and across countries (Abraham and Pingali, 2020). The future of all smallholders may well not lie in farming, but the measures to stimulate the rural non-farm economy and provide jobs for those leaving farming—a favorable rural investment climate, provision of public goods, institutional development—are largely the same as those for agricultural development as well (Wiggins *et al.*, 2010).

Conclusion

The government has indeed provided many services, programs and inputs to the small farmers of CDO however they have still remained poor. The sector is a vulnerable group that constantly face interrelated risks and challenges which threaten their livelihoods, food security and nutrition. Improving agricultural productivity and household-level income are crucial to reducing poverty while the growth and development of small producer agriculture are critical to meeting multiple SDGs.

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