Uplifting Farmers Communities: A Training Needs Assessment

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Abstract— *Educating farmers through training usually happen outside the formal learning institutions and it aims to contribute towards adult learning and improving their farming performances. This study focused on identifying the training needs and develops capacity training to improve farmers' association communities in their farming practices. A combination of internationally documented qualitative and quantitative research methods was utilized to capture the current knowledge and training needs of farmer's association communities and the importance they place on different agricultural practices, and also to understand the best and most efficient approach in transmitting agricultural knowledge. The study used mixed methods in gathering data such as interview, survey and focus group discussion. Findings indicated that farmers associations still desire to improve their present knowledge and give more importance on the following: crop production in water management, vegetable production in controlling pest and diseases, livestock in chicken production and disease management, and developing small business as their alternative livelihood. It also showed that the government extension services were the main provider and presentation during community meetings is the most preferred methods of farmer's association in receiving trainings. However, training needs and capacity training for the farmers' association communities required participation, cooperation and openness from the farmers towards their upliftment.*

Keywords— Agricultural Extension Service, Capacity Training, Farmers Education, Farmers' Upliftment, Training Need.

I. INTRODUCTION

Knowledge and training enables farmers to escape from poverty by providing them with the awareness and skills to improve their agricultural produce and income (Ogundele et al., 2012). According to Shibu & George (2013), training is planned activity intended to enhance the knowledge, skill and competencies of the farmers for the refining his/her performance, and this might be useful for reaching the required level of knowledge and skill. In developing effective training it requires a comprehensive knowledge of the training need of the target beneficiary or group. Barbazett (2006) mention that it is essential for the training institution to determine who, what, when, where, why and how of training before any actual training is conducted.

In several situation, at the national level or the organization identified the training needs of the farmers without considering the particular needs and preferences of farmers themselves. That frequently results in a gap between training program and methods and the particular needs of farmers in relations of their knowledge, skills and interest. Ageogun et al., (2013), state that training needs assessment can determine the "gap" between existing performance and required performance, and search the source and details of the gap and methods for terminating or removing it. The individual farmers require training on their skills, knowledge and attitudes to overcome challenges as well as to minimize creating problem circumstances in their farming practices. Meenambigai and Seetharaman (2003) emphasized that training is the utmost singular reason affecting farmers' attitude, productivity, improvement, minimization of risks. In a need analysis this can recognize more than one training needs that should be a priority and consider to a formal training plan or to make a record for future training. The concept of need assessment is the process used to determine if training is necessary. Problem identification and definition is the start of needs analysis. Determining whether training is needed and to specify what that training should provide is the main step in any training program. A needs assessment that considers the views of farmers is necessary to guarantee that the design and development of training programs meets the needs of the farmers which it aims to serve.

A farmer training is an education that customarily takes place outside formal learning institutions and it hopes to lead towards adult learning and improving performances. Training has an crucial role in the advancement of human performance just like the farmers since it provides a systematic advances of knowledge and skill and these developments are useful in working proficiency of learners (Sajeev, 2010).It therefore necessitates an approach that takes the course of the 'situations', rather than 'subjects'. Contrary to conventional education in which the student is required to adjust him or herself to an established curriculum, the curriculum in adult education is built around the students' needs and interests (Sajeev, M.V.

Singha, A.K. and Venkatasubramanian, V., 2012). This highlights the significance of getting it right, ensuring that both the subject matter and approach are suitable and relevant to farmers.

According to Qamar, (2005), most of the training of farmers becomes part of agricultural extension, which can be defined as the provision of need and demand-based agricultural knowledge and skills to rural men, women and young people in a non-formal and participatory manner to help improve their quality of life. Agricultural extension generally consists of three basic tasks: disseminating useful and practical information relating to agriculture and home economics, supporting farmers to practically apply that knowledge to analyze their problems, and assisting farmers to use the technical knowledge to better solve their farming constraints (Zakaria, 2010). However, such initiatives are not capable to discontinue completely the gaps of the dysfunctional community research and extension systems that are mainly intended to help smallholders and other people in deprived areas with the establishment of value agricultural services (World Bank 2012).

Smallholder farmers can take advantage of a tailored training as part of agricultural extension, to achieve sustainable agricultural activities. This extension facilitates farmers to accept firsthand innovations, to advance their production, income, and to care for the environment. However, there is an unlimited variety occurs in farmers' access to extension services, at the same time the quality of services provided. Likewise, methods used to carry out the extension services and the topics designs are not always suitable to the need of the farmers. Understanding the training needs of farmers allows extension providers just like the agribusiness incubation center to improve, customize extension services to efficiently extent and benefits farmers' communities.

The availability of services for small farmers is mostly attributed from the support of private donors and non-government organizations, since government agricultural services are minimal. Improved coherence and stronger partnerships can advance the worth and influence of capacity development in innovation systems as shown in the practice (The World Bank 2012, Ludemann et al. 2012, Juma 2011, The World Bank 2007).Though, harmonization of services is limited, mainly at the sub-national level, frequently it results in replication of services and ineffective use of resources (Santoyo Rio, 2013). To minimize the duplication of services and inefficient use of resources the training needs assessment in this study is crucial.

The training needs assessment is an essential start-up activity of the Agribusiness Incubation center of the Partido State University- Salogon campus towards uplifting farmers' association communities for the sustainability of agriculture and agribusiness for its rural development. The main purpose of this study is to identify the training needs and develop capacity training of the farmer's community in San Jose, Camarines Sur. It also identifies the socio-demographic and farming characteristics of the farmer's community and recognizes its agricultural activities. Similarly, it classifies the extension providers and the preferred methods of farmer's community. Issues affecting delivery of training of farmer's community were also assessed. Furthermore, the findings of the study will be used to develop capacity training on topics in which farmers expressed a need for training and the method of delivery necessary to reach them and this will form part of the services of the agribusiness incubation center. Where training is a fundamental part of any growth activity (Pandey et al., 2015) of the farmers. Likewise, these add knowledge in capacity development training and agricultural extension services.

II. METHODOLOGY

This study was conducted in the town of San Jose, Camarines Sur where farming is the main livelihood. They also have a sufficient farm harvest to address the food sustainability of the town, but the farmers still aim to improve their farming livelihood where this study seizes the opportunity to assess the training needs of the farmer's community and develop capacity training. The populations of the study are the members of the active farmer's association and cooperative in San Jose, Camarines Sur where they have already received agricultural trainings and continuously availing the agricultural extension provided by the Department of Agriculture. Using sloven formula a sample of 265 respondents was identified in this study. It applied random and purposive sampling procedures. Purposive sampling to identify the farmer's respondent from the association and cooperative. The Department of Agriculture of San Jose, Camarines Sur provided the list and recommend active farmer's association and cooperative.

It utilized both qualitative and quantitative research design that includes survey and focus group discussion with key informant in the farmer's association. Data were collected through a survey with a structured questionnaire, interview and focus group discussion. Personal knowledge (competence) on the different areas of agricultural training needs was self-assess by the farmer's and they rate the importance of the training needs. It uses a five likert-type scale ranging from none to very high to measure the level of current knowledge of the farmer's respondent. In considering the importance of training needs a three point likert-type scale with response options ranging from not important to very important was used.

The respondents of this study are the small scale farmer's whose earnings comes majority from agricultural activities. Oral consent was provided by the farmer's respondent to participate in this study after a short orientation of the research objectives. Confidentiality was assured on their responses and also the voluntary nature of the interviews.

The research questionnaire used in this study was developed based on published literature on training needs assessment. The first part of the questionnaire was the demographic and farming characteristics of the respondent that includes sex, age, education, household size, farming experience, size of agricultural land, land ownership, agricultural activities and annual farm income. Followed by the major training needs components identified in this study such as crop production, vegetable production, fruit growing and livestock. Detailed training needs were included in each training needs components. The other parts of the questionnaire are about the main providers and the frequency of agricultural extension advice and their preferred method and time to receive extension services. Lastly, a space was provided for the other answers and comments.

Descriptive statistics such as frequencies, percentage and mean were used to analyze the data. Frequency and percentage was used to analyze demographic and farming characteristics. Borich model (1980) one of the most used models for assessing training needs in agricultural education and extension were utilized in this study. In this model, a weighted discrepancy score was calculated for evaluation and ranking of farmer's training needs. A Mean Weighted Discrepancy Score was computed to describe the overall ranking for each of the training areas. The competency that has the highest scores was considered the highest need and priority for training.

III. RESULTS AND DISCUSSION

3.1 Socio-Demographic and Farming Character of the Respondent

TABLE 1
SOCIO-DEMOGRAPHIC CHARACTERISTICS OF THE FARMER'S RESPONDENT

Personal Characteristics			Farming Characteristics		
Characteristics	**F**	**P**	**Characteristics**	**F**	**P**
Sex			Farming experience (years)		
Male	177	67%	Less than 3	7	3%
Female	88	33%	3 to 5	13	5%
			More than 5	241	92%
Age (Years)			Land ownership		
Less than 30	3	1%	Own all	82	31%
30-39	9	3%	Lease all	24	9%
40-49	49	18%	Part own/part lease	157	60%
Above 50	204	77%			
			Size of agriculture land (ha)		
Education			No Land	2	1%
No formal education	0	0	Less than half	31	12%
Not finished primary school	72	27%	0.5 to 1	131	49%
Completed primary school	97	37%	1 to 2	59	22%
Completed high school	12	5%	2 to 3	23	9%
Higher than high school	83	31%	3 to 4	8	3%
			More than 4	12	5%
Household members			Percentage of yearly income from agricultural activities		
1	9	3%	Less than 25%	50	19%
2	41	16%	25% to 50%	142	53%
3	42	16%	50% to 75%	57	22%
4	42	16%	More than 75 %	16	6%
5	46	17%			
6 or more	83	32%			

Table 1 showed that the personal characteristics of farmer's respondent are majority male which is 67%, with age range 50 years old and above which is 77%, in terms of their educational level majority completed primary school which is 37% and household is composed of 6 or more members. Since majority of the farmers just completed primary school, developing capacity training would help them increase their farming knowledge. It was observed that farming is still dominated by men although there are a growing number of women which is 33% of the respondent who engaged themselves into farming however, there are few young farmers. These created a challenge to the farming industry for the food sustainability since farmers are getting old and few young farmers are engaging into farming. But it is interesting to note that there is a large number of farmers who reach higher than high school, this indicated that some professionals and college graduate are attracted to engage in farming as a business farmers and this could be a hope for the farming industry.

Table 1 also showed the farming characteristics of the farmer's respondent that majority has more than 5 years farming experienced which is 92%, they partly own and lease the land that they farm which accounts for 60%, the size of their agricultural land for farming is majority half to one hectare and the percentage of their yearly income from agricultural activities is between 25% to 50%. It was noticed that only few farmers have less than 5 years farming experience which is 8%. This means that farmers' respondents are well experienced in terms of farming but still open to new technology and methods to improve their productivity. It was also observed that there is a decreasing size of land used for agriculture and produces less than 50% of farmer's income. These indicated that farmers nowadays are not anymore relaying their income from farming and they have alternative livelihood to augment for their family needs.

3.2 Agricultural Activities of the Farmers Respondent

TABLE 2
AGRICULTURAL ACTIVITIES OF FARMERS RESPONDENT AND ITS MAIN PURPOSE

Agricultural xActivity	N	P	Purpose		
			Own Consumption	To Sell	Own Consumption and to sell
Crop production					
Rice	273	51%	16%	10%	74%
Maize	15	3%	33%	33%	33%
Cassava	50	9%	94%		6%
Pepper	4	1%	50%		50%
Other – Peanuts	1	0%		100%	
Vegetable production	103	19%	68%	17%	15%
Fruit growing	86	16%	95%		5%
Livestock					
Carabao	32	7%	97%	3%	
Cows	53	12%	77%	17%	6%
Chickens	144	32%	90%	1%	8%
Ducks	94	21%	91%	3%	5%
Pigs	119	26%	68%	22%	10%

Majority of the farmers respondents are engaged in rice production since rice farming is the main livelihood in the town both for their consumption and to sell as reflected in Table 2. Their agricultural activity is followed by livestock of chicken, pigs and ducks but mostly for their consumption and minimal for selling that is also true to their vegetable production and fruit growing. It was observed that their livestock are majority for their consumption since once they sell the livestock alive they could not demand for a higher price and for the vegetable during harvest time there is an oversupply so prices goes down. Because of this farmers' are discouraged to plant vegetable for selling but still they engaged in vegetable production as a strategy when water is not available. For the farmers, if they could not plant rice because there is no water then they could still plant variety of vegetable that requires less water.

In the agricultural activities, farmers encountered several challenges in farming. Table 3 showed the main problems encountered by farmers in their agricultural activities. The top five are the following the high cost of inputs, pests and diseases, lack of capital and credit, low prices when they sell their harvested products and drought. It was observed these top five concerns of the farmers' respondent are the recent issues of most of the farmers' around the world. Farmers' are challenged by the high cost of inputs and when they sell their harvest the price are low. The situation calls for the farmers to

add value to their harvest so that they could sell at competitive price. The farmer sector is confronting several challenges that reduce the farm produce (Sattar, 2012). While they have less concern on crop insurance needs, training needs, low harvest, limited experience and poor soil in their farming activities. It was noticed that farmer's respondent are less aware of the importance of insurance in their farming activity particularly during calamity like drought during summer. The low harvest could be attributed to the pest and disease. The poor soil is because the land in some area of San Jose, Camarines Sur is mix of sand and soils particularly those areas near the coastal.

TABLE 3
MAIN PROBLEMS ENCOUNTERED BY FARMERS IN THEIR AGRICULTURAL ACTIVITIES

Problem	P	Rank	Problem	P	Rank
High cost of inputs	14.96%	1			
Pests and Diseases	14.65%	2	Lack of Markets/information	1.18%	11
Lack of capital and credit	12.76%	3	about markets		
Low Prices	12.28%	4	Poor soil	0.94%	12
Drought	8.11%	5	Limited knowledge of how to	0.63%	13
Labor	7.24%	6	use fertilizer		
Changes in weather	7.24%	6	Limited experience in farming	0.24%	14
Other - water supply	6.61%	7	Other - low harvest	0.08%	15
Lack of tools and equipment	6.54%	8	Other - training needs	0.08%	15
Floods	4.65%	9	Other - insurance needs	0.08%	15
Poor or insufficient training	1.73%	10			

3.3 Training Needs of the Farmers' Respondent

This study assessed the training needs of the farmers respondent that reflected several topics in agricultural production which the farmers articulated a need for training. From a pre-designed list were all area of training the respondent signified their interest, they were asked to choose and specify their perceived current knowledge and the importance of the area for them. In Table 4 to 9 it shows the weighted mean and ranked of each discipline of the training needs of the respondent. The most important trainings needs of the farmers were determined by the highest rank.

To determine the highest rank of training needs it uses the mean weighted discrepancy score (MWDS). Table 4 indicated that crop production has the highest rank it means the farmers respondent still need more training for crop production to improve their harvest productivity and since this is their main livelihood. Then, the livestock and vegetable production of the respondents were they have a lesser extent need for training in this area. Since, it was observed that livestock and vegetable are more for their family consumption. On the other hand, fisheries and fruit growing were ranked low as perceived by the farmers. Most of the farmers are not engaged in fishing so they don't see a need for training in this area. For fruit growing, farmers considered this as a backyard plant not intended for generating income.

TABLE 4
TRAINING NEEDS OF THE FARMER'S RESPONDENT IN ALL AREAS

Areas	Mean (Weighted)				
	Knowledge	Importance	DS	WDS	WDS Rank
Crop production	2.97	4.89	1.91	9.34	1
Vegetable Production	1.64	3.23	1.59	5.12	3
Fruit Growing	1.00	2.41	1.41	3.41	5
Livestock	1.88	3.54	1.67	5.91	2
Fisheries	64.	2.02	1.38	2.79	6
Food Processing	0.87	2.34	1.47	3.44	4

In the crop production, the top three areas were the respondent signified a need for training are water management, control pest and disease and using new technology in farming (see Table 5). Water management has the highest rank which indicated that respondent signified trainings for water management since this limit them for their production cycle particularly in rice production that needs more water. Next, respondent see the need for training of controlling pest and disease to minimize damage of their crop. For the farmers pest and disease affect the profitability of their agricultural activities and controlling it

could increase their productivity. Lastly, respondent are after on training using new technologies in farming to upgrade their farming practices.

Table 6 and 7 showed the training needs of the respondent in vegetable production and fruit growing. It was noticed that both in vegetable production and fruit growing they have the same the top three areas were they expressed a need for a training such as control pest and disease, water management and fertilizer use. For the farmers, they need to learn more how to control pest and disease because this affects profitability of their agricultural activities and this could help them in cost-effective way to increase agricultural productivity. Concerned on water management creates a challenged to the respondent in their vegetable production and fruit growing since they need water as the plants are growing. Also, farmers must be able to choose which fertilizer to use that will help their vegetable and fruits to generate more harvest and less mortality. Therefore, farmers recognized the need to have training in fertilizer use.

TABLE 5
TRAINING NEED OF FARMER'S RESPONDENT IN CROP PRODUCTION

Areas	Mean (Weighted)				
	Knowledge	Importance	DS	WDS	WDS Rank
Selection and buying inputs	2.54	4.27	1.73	7.37	9
Preparing land for planting	2.59	4.34	1.75	7.58	7
Method of planting	2.59	4.36	1.77	7.71	5
Fertilizer use	2.58	4.34	1.76	7.63	6
Control of pests and diseases	2.67	4.47	1.8	8.04	2
Harvesting	2.48	4.23	1.74	7.37	9
Post-harvest activities (e.g. drying, milling)	2.45	4.2	1.75	7.37	9
Crop diversification(trying new crops)	2.52	4.33	1.82	7.88	4
Water Management (Irrigation)	2.69	4.53	1.84	8.36	1
Using New technologies	2.5	4.34	1.84	7.97	3
Marketing	2.47	4.25	1.78	7.55	8
Other		1.03	1.03	1.05	10

These challenges can be undertaken by giving capacity building and training opportunities to deprived farmers with the pledge that they would be able to build up their skills, capabilities (KGF, 2011) and approaches for sustainable agriculture development (Power and Maclean, 2011

TABLE 6
TRAINING NEED OF FARMER'S RESPONDENT IN VEGETABLE PRODUCTION

Areas	Mean (Weighted)				
	Knowledge	Importance	DS	WDS	WDS Rank
Selection and buying inputs	1.47	3.12	1.65	5.16	8
Preparing land for planting	1.58	3.27	1.68	5.50	6
Method of planting	1.81	3.55	1.73	6.15	4
Fertilizer use	1.82	3.56	1.74	6.20	3
Water Management (Irrigation)	1.79	3.58	1.79	6,42	2
Control of pests and diseases	2.08	3.96	1.88	7.44	1
Harvesting	1.50	3.16	1.65	5.22	7
Marketing	1.53	3.26	1.73	5.62	5
Other	0.08	1.28	1.2	1.54	9

It was observed that in crop production, vegetable production and fruit growing the respondent have common areas that they articulated a need for training. These are water management and control pest and disease. Water management since this affects the rice production, vegetable production and fruit growing. Farmers are dependent on the water irrigation and rain as a source of water for their farming. It was noted that these create a challenged to the farmers to strategies on choosing which to plant, rice or vegetable and which variety of vegetable to plant for a particular season that will require less water. Pest and disease is another thing, since farmers viewed this as main obstacle to their agricultural production were the effects on crops

is evidently noticeable. These findings is similar to the remark of Barman et al. (2013) who reported pest and disease management, and water management were included in the top five important training need area that majority farmers had high level of training need.

Livestock is the second areas were the respondent showed interest for training. It was observed that livestock becomes a compliment to the farming activities of the farmers and as a source of some of their income. Training needs for chicken emerged as the most important area for the respondent (refer to Table 8). This was followed by disease management and pigs. It was observed that the common backyard livestock the farmers had are chickens and they are challenged on how to deal with its diseases. Few respondents showed interest on animal feeding, housing and others which may reflect that farmers just rely on their basic knowledge on how to feed animals and the simple housing they provided to their livestock.

TABLE 7
TRAINING NEED OF FARMER'S RESPONDENT IN FRUIT GROWING

Areas	Mean (Weighted)				
	Knowledge	Importance	DS	WDS	WDS Rank
Selection and buying inputs	1.25	3.22	1.97	6.33	7
Preparing land for planting	1.23	3.22	1.99	6.40	6
Method of planting	1.49	3.55	2.06	7.30	4
Fertilizer use	1.66	3.78	2.13	8.05	2
Water Management (Irrigation)	1.59	3.72	2.13	7.94	3
Control of pests and diseases	1.92	4.15	2.23	9.27	1
Harvesting	1.19	3.17	1.98	6.27	8
Marketing	1.25	3.29	2.04	6.74	5
Other	0.00	1.49	1.49	2.22	9

TABLE 8
TRAINING NEED OF FARMER'S RESPONDENT IN LIVESTOCK

Areas	Mean (Weighted)				
	Knowledge	Importance	DS	WDS	WDS Rank
Chickens	2.29	4.13	1.84	7.61	1
Pigs	2.32	4.14	1.82	7.55	3
Cows	1.53	3.24	1.70	5.50	6
Ducks	1.63	3.37	1.74	5.86	5
Disease Management	2.11	4.00	1.89	7.57	2
Housing	1.48	3.19	1.71	5.46	7
Animal Feeding	1.62	3.26	1.65	5.37	8
Floods/disaster Management	1.48	3.29	1.81	5.97	4
Other	0.05	1.27	1.22	1.55	9

Aside from agricultural training needs farmers' respondent also indicated training for small business development, forming and managing self-help groups and handicrafts as reflected in Table 9. Majority of the farmers' respondent are interested to develop and start a small business so that this could help augment to their family income. Since income from farming nowadays are not enough and reliable. They also realized the need for training in forming and managing self-help groups particularly among the farmers. The government had been encouraging the farmers to form association or cooperative so that they could support each other and since most of the programs of the government for the farmers are intended to groups or association. Another is they also wanted to have a training in handicraft they see this as an opportunity to learn and possible alternative source of income. Likewise, they also realized that they need training for managing their finances. This could help them improve how to manage their limited resources. It was noted that farmers are now becoming aware that even if they have limited finances it is still important to manage it.

TABLE 9
TRAINING NEED OF FARMER'S RESPONDENT IN OTHER AREAS

Areas	Mean (Weighted)				
	Knowledge	Importance	DS	WDS	WDS Rank
Forming and managing self-help groups	2.28	4.29	2	8.6	2
Managing finances	1.73	3.53	1.81	6.38	4
Handicrafts	1.44	3.41	1.97	6.72	3
Small business development	2.12	4.29	2.08	8.75	1
Other	0.01	1.31	1.30	1.71	5

3.4 Agricultural Extension Providers and methods of the Farmers' Respondent

Furthermore, this study identified the extension providers, extension advice received and methods preferred by the farmer's respondent for their training needs.

In the focus group discussion, farmers' respondent stated that the main extension providers they have are the Department of Agriculture (DA), other farmers and the input suppliers. The Department of Agriculture provides several agricultural extension services such as farmers' field school, hybrid inputs, and free crop insurance to name few of their services. But the DA extends these services to the farmers who are members of farmer's association. On the other hand, some farmers provide services to their fellow farmers particularly if they have new technology, methods in farming, new variety of crop and a better fertilizer. Also, input supplier extends services to the farmers specifically in lending farmers with the inputs they need for their farming activities.

It was noticed that almost of the farmers have received some form of agricultural advice or training which includes advice from other farmers that belongs to their association in their farming activities as capture in Table 10. It indicated that majority received agricultural advice or training in crop production and some in vegetable production, agricultural technology and livestock. Respondent received less advice or training in terms of marketing, fisheries, fruit production and no training for food processing.

This finding is similar to what Swanson and Rajalahti (2010) mention that part of the four major paradigm of agricultural extension is the technology transfer and non-formal education which majority of the farmers' respondent had experience already.

TABLE 10
AREAS OF EXTENSION ADVICE RECEIVED BY THE FARMER'S RESPONDENT

Areas	F	P	Rank
Crop production	257	63%	1
Vegetable production	65	16%	2
Fruit production	4	1%	6
Livestock	30	7%	4
Fisheries	9	2%	5
Agricultural technology	35	9%	3
Food processing	2	0%	8
Marketing	4	1%	7
Other*			

Includes new technology tools and organic farming.

Table 11 - indicated that presentation during community meetings is the most preferred method of agricultural activities, followed by individual farm visit and written materials. TV and radio programs were not chosen by the farmer's respondent as method of agricultural activities. This reflected that farmer choose practical training methods to upgrade their learning capability, which was also articulated during the focus group discussion. Besides, TV and radio programs are sometimes not accessible in their area.

However, individual farm visit is an expensive methods according to Anandajayasekeram et al.(2008) where they pointed out that this method is expensive in terms of transportation cost and time consuming and only few farmers farm can be visited that resulted to limited farmers to reach out.

TABLE 11
PREFERRED METHOD OF AGRICULTURAL ACTIVITIES BY THE FARMER'S RESPONDENT

Method	Male	Female	Total	Rank
On-farm demonstration	8%	7%	7.5%	5
Farmer field school	6%	5%	5.5%	6
Workshops	15%	15%	15%	4
Individual farm visits	24%	28%	24.8%	2
Written materials	19%	18%	18.5%	3
Presentation during community meetings	27%	25%	26%	1
TV programmes	-	-	-	-
Radio programmes	-	-	-	-

During the survey interview, farmers stated that they would like to receive training during summer period were water is not available and they cannot plant (in January to May) and would prefer to have the training early morning before the preparation of their lunch (between 8am to 10am) and for two hours only and at least once a week (refer to Table 12). Therefore, training can be best conducted early morning during summer period.

TABLE 12
PREFERRED TIME OF FARMER'S RESPONDENT TO RECEIVE EXTENSION SERVICES

Period	Percent							
	Early Morning		Late Morning		Early Afternoon		Late Afternoon	
	F	P	F	P	F	P	F	P
Jan-May	109	57%	5	3%	78	40%		
Jun-Oct	21	57%	1	3%	15	40%		
Nov-Dec	12	54%	1	5%	9	41%		

3.5 Challenges affecting provision of training

The provision of extension services to farmers has several distinctive challenges both on the sources and the one requesting. For the requesting side, specifically with regards to availing, it was investigated in this study and captured in Table 13. The common hindrance encountered by the farmers in availing agricultural extension services was not being invited which is 32.5% this happen because they are not active members of the association or each association gets limited slot. Therefore slot for training are limited and given to selected members of the association. More than 17% expressed that they have limited knowledge about training opportunities as main hindrance. This is similar to the findings of Anandajayasekeran et al., (2008) where limited amount of information that can be distributed at a given time hinder the mass extension methods. Other hindrances include distance to training facilities, don't have land title, no time to participate/too busy, child care responsibilities and inadequate training staff.

It was noticed that men and women generally encountered the same hindrances in availing agricultural services. The difference was for men distance to training facilities is their 2nd hindrance while for women was the limited knowledge about the training opportunities. It only shows the men gets more access on the training opportunities than women. Interestingly, both men and women are affected by child care responsibilities in accessing to agricultural extension services.

TABLE 13
HINDRANCES ENCOUNTERED IN AVAILING AGRICULTURAL EXTENSION SERVICES

Difficulty	Male	Female	Total	Rank
Low Literacy level	3%	2%	2.5%	7
No time to participate/too busy	11%	9%	10%	5
Limited knowledge about training opportunities	16%	19%	17.5%	2
Inadequate training staff	3%	2%	2.5%	7
Not invited	37%	28%	32.5%	1
Child care responsibilities	7%	9%	8%	6
Distance to training facilities	18%	15%	16.5%	3
Don't have land title	6%	16%	11%	4

These findings clearly indicated that farmers must be given equal chance to be invited to avail of agricultural extension services. Information about the training must be disseminated to all the farmers or to reach out with the farmers every time there are training opportunities. So that farmers could plan and organize ahead to attend, information about the dates, places of the training should be provided in advance. It could also bring the trainings to the place of the farmers so that they could attend and participate. It is also noteworthy to obtain feedback from farmers after the trainings they have received. This feedback can help improve the agricultural extension services.

IV. CONCLUSION AND RECOMMENDATION

The results of the study established that the training needs of farmers are generally significant that leads to proposing capacity development training and need for increased agricultural extension services in most of the agriculture and agribusiness areas. It also revealed that farmers used to qualified most of their agricultural challenges to restricted concerns such as water irrigation/management and pest and disease. It was recognized that during self-assessment of the farmers on their current knowledge it was reflected in most areas they rate themselves moderate despite decades of experience in farming and in the importance of topic as high. The reasons why farmers have this pattern of responses can be attributed to: first, lack of confidence of farmers when it comes to their farming knowledge. They are aware that their knowledge is not updated and upgraded. Second, they remain humble that despite they have the experience they still rate themself moderate. Lastly, it showed that they are open for new knowledge in farming particularly the use of technology and new method.

Likewise, the study indicated that farmers are not aware of the several opportunities that can bring positive impact on their agricultural efficiency and earnings such as improved marketing skills to sell their harvest, using new technology in their farming activities which can increase their effectiveness and adding value to their harvested product, they could sell these products at competitive price. Therefore, it is vastly suggested that farmers be open to new ideas through hands-on methods. Farmers can network with other farmers that have implemented new technologies or practices to assist collaboration.

Furthermore, farmers revealed that they do not have the same levels of competence (knowledge) and different needs for future training across agricultural practices. Actual training needs for particular agricultural practices were shown using the Borich Need Assessment Model and the most important training need that was identified was water management/irrigation and control of pest and disease. These two areas was identified as the highest need across several areas – crop production, vegetable production and fruit growing and correlates with the second main agricultural difficulties farmers encounter. Lastly, farmers preferred hands-on learning method than academic lessons, appeals for training that is appropriate for their time and place, and address specific demands at home like child care.

The following recommendations are suggested based from the findings of the study:

- In developing capacity training for the farmers the following must be considered: training on water management (irrigation), and pest and disease management should be prioritized across all areas, also training on new technologies for crop production and on fertilizer use for fruit growing must also be given priority. Next, agricultural extension services and training for farmers must highlight hands-on training and reflection than academic training. Then, the best time to provide trainings to the farmers is during summer period (January to May) at early morning. Lastly, training on developing small business and financial management of the farmers must be given emphasize as these becomes the emerging trainings needs of the farmers. However, a frequent field survey to evaluate and monitor changes in the agricultural training needs of the farmers.
- Collaboration with the department of agriculture and other agriculture extension provider is recommended to avoid duplication and improve capacity development training for the farmers.

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