#### BIBLIOGRAPHY

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#### ABSTRACT

Organic farming is gaining popularity due to its concern for health and environment. Concern, hence, is on the support of farmer toward this system, among others.

This study aimed to determine the perceptions and attitudes of farmers towards organic farming and their willingness to go into this.

Fifty respondents were interviewed at Gambang Bakun, Benguet to determine their perceptions, attitudes and willingness to shift organic farming.

The study revealed that farmers of Gambang Bakun are not well informed on what organic farming is. Their technical knowledge is very limited only; however, they have high awareness on the environment and health aspects of organic farming. Whereas, and not on the other components of organic farming. Whereas, most of them are willing to go organic, most especially the middle aged group, majority needs the support of the government. It is thus recommended that, to encourage a shift into organic farming, concerned institutions must provide information, education, and training to farmer in the area staring with the middle-aged group. Input assistance is also recommended.



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## **INTRODUCTION**

## Rationale

Every Filipino knows that vegetables are one of the most important products of the Philippines. Its value could hardly be over-estimated because majority produce and eat it, for they are informed that vegetables are rich in vitamins.

Organic farming is now widely recognized by the public and government as a valid alternative to conventional agriculture. It is because medical research linked cancer with the use of agricultural chemicals and fertilizers frequently applied by commercial farms.

Applications of chemicals on farms like pesticides can affect the ecosystem. Based on the new studies of US and Europe organic farming can help mitigate global warming. In Gumba Nueva Ecija farmers believe that through organic production they could contribute in the battle against global heating and climate change (Benaning, 2009).

Actually, pesticides are poisons. This was stressed by Dr.Lynn R.Panganiban of the National Poison Control and Information Service. She gave the definition of Pesticides as a chemical used for controlling, preventing, destroying, repelling or mitigating troublesome and destructive animals, mostly insects. These substances are inherently poisonous that can harm man and environment. Humans are affected when they are exposed to the poison through oral and inhalation (Marquez, 2004).

Organic farming can contribute meaningful socio-economic and ecologically sustainable development, especially in poor countries. And this could be achieved through the application of organic principles, which means efficient management of local resources like local seed varieties and manures. It is proven that most organic farms



provide a means of agricultural sustainability by reducing the amount of human input such as pesticides and fertilizers. Farmers that produce vegetables through organic method reduce risk of poor yields (Wikipedia, 2009).

It is a must that farmers should know that organic farming benefits them in many ways. It does not pollute environment. That means it does not contribute or aggravate illnesses or diseases related to environmental pollution. Moreover, it does not only concern the health of human beings but also with animals. Soil is preserved and prevented also from quality degradation. This means that succeeding crops after every organic farming in a specific farm has the least chance against soil related problems like soil acidity for example. Doing all the right procedures of organic farming in producing edible organic vegetable is truly a time consuming, but, it is far cheaper in expenses comparing it to conventional farming.

#### Importance of the Study

Organic farming is a highly ethical form of agricultural production, with clear concerns for animals and human welfare such as ensuring that farmers get a fair return for their work and are not exploited by consumers.

Shifting to organic farming in Bakun would be desirable for it could benefit farmers in many ways. This would help them to preserve soil fertility in order to produce healthy foods for consumptions as well as ensure sustained farming productivity. Conducting this study will help the farmers of Bakun municipality to be familiarized with organic farming. They will be able to appreciate the benefits they can achieve from it. It will be easy for them to understand what organic farming is, what the necessary things



are or equipment to be used, how to do organic farming and what are the important things to remember when implementing the said organic production.

# Statements of the Problem

- 1. What are the perceptions and attitudes of farmers on organic farming?
- 2. Are the farmers of Bakun willing to go into organic farming?

# Objectives of the Study

- 1. To determine the perceptions and attitudes of farmers on organic farming.
- 2. To determine what farmers are willing to go into organic farming.

# Scope and Limitation of the Study

Organic farming sustains the health of soil, plant, animal and human. This study deals on the perceptions and opinions of farmers on organic farming from the identified barangays of Bakun. The study was conducted December 2009.



#### **REVIEW OF LITERATURE**

As stated by Kristiansen, *et al* (2006), the term organic was first used in to farming by Nourthbourne .The farm itself must have a biological completeness, and it must be a unit which has within itself balance organic life.

Furthermore, they mentioned that the International Food Standards, Codex Alimentarius, state that organic agriculture is a holistic management production system which promotes and enhances agro-ecosystem, health including biodiversity, biological cycles and soil biological activity. It emphasizes the use of management practices in preferences to the use of off-farm inputs.

Howard is widely considered to be the "Father of Organic Farming". He believes that organic farming is beneficial; he believes that the health of soil, health of plants and animals are fed by that soil.

International Federation of Agriculture Movements (IFOAM), an international organization for organic organizations have a draft revised principles of organic agricultures, this are the Principles of Health, organic agriculture should sustain and enhance the health of soil, plant, animal and human as one and indivisible. Ecological Principle, organic agriculture should be based on and work with living ecological systems and cycles, emulate them and help sustain them. Principles of fairness also state that it should be built upon relationships that ensure fairness with regard to the common environment and life opportunities. Lastly, is the Principle of care it could be manage in a precautionary and responsible manner to protect the health and well being of current and future generations and the environment.



Organic farming is the form of agriculture that relies on crop rotation, green manure, compost, biological pest control and mechanical cultivation to maintain soil productivity and control pests, excluding or limiting the use of synthetic fertilizers and pesticides, plant growth regulators and livestock feed additives. Organic agriculture methods are internationally regulated and legally enforced by many nations, based in a large part on the standards set by the IFOAM, IFOAM defines the goal of organic farming as follows, "Organic Agriculture combine tradition, innovation and science to benefit the shared environment and promote fair relationship and good quality of life for all involved.

Furthermore, pesticides damage human health with direct exposure and the environment. Pesticides ran-off is one of the most significant effects of pesticides use (Wikipedia, 2009).

Kitma (2009) says that in organic farming feed the soil and not the plant directly. Plants are not designed to get their nutrients by being forced fed. Plants, in order to grow healthy, need fertile soil. Soil fertility can be maintained by the application of quality compost, proper application of animal and green manure, proper crop rotation as well as cultivation process. He added also that there is no such thing as pest if we encourage a well balanced micro-ecology, spraying pesticide to control plant pest does not solve the problem of pest. For him, key to pest management is through building a well balanced micro-ecology that include soil, plants, animals and micro-organisms, healthy soils grows healthy plants and healthy plants do not get infested easily by pests and diseases.

Furthermore, plant strong local season crops. Avoid hybrid and other seeds that have been grown with pesticides and chemical fertilizers. Generally weak in vigor, easily



attacked by pest and diseases. Kitma mentioned that in organic farming you need to grow different plants together which means mono-culture or growing of one crop continuously in a wide scale area is not good. It will deplete soils and make crops vulnerable to pest and diseases.

New studies from US and Europe confirm that organic farming can help mitigate global warming. Some major reasons on how organic agriculture can help battle change are organic farming does not pollute air, water and land because it does not utilize chemical fertilizers and pesticides. Its method uses manure and cover crops like legumes to enrich the soil which helps sequester CO2 from atmosphere. It uses less energy also than conventional farming.

Moreover, technology use in organic agriculture enhances soil fertility, in turn, encourage crops to develop deeper roite which increases the amount of organic matter in the soil, locking up carbon underground and keeping it out of the atmosphere. Organic farming combats global warming by capturing carbon dioxide in the atmosphere and incorporating it into the soil (Clarapols, 2008).

Organic farming increases biodiversity at every level of the food chain, all the way from lowly bacteria to mammals. Organic farming practices benefits the wild life around the farm.

Furthermore, Clarapols stated that farmers who switch organic farming may have been predisposed towards environment-friendly methods so biodiversity may have been higher than the average before conversion (Clarapols, 2004).

According to Benaning (2009), in organic agriculture, the restricted use of mineral fertilizers reduces the use of non-renewable energy from fossil fuels and cuts



emission of agricultural green houses like carbon dioxide, nitrous dioxide and methane. Soil enriched with fauna and flora not only increases nutrient cycling and agricultural productivity but stabilizes soil against erosions and floods detoxify ecosystems and may even help counter act climate change by restoring the soil capacity for carbon sequestration.

Opina (2008) says that health experts promote the consumption of organic vegetables for its high nutritional content and for having the ability to boost the immune systems by fighting certain diseases.

Kristiansen, *et al*, (2006) stated the importance of organic matter. Losses of organic matter as a result of continuous growth of the same crops have a bad effect in the tilth. Crop sequence under the dry land conditions because of the difference in residual soil moisture left by different crops and the length of fallow period for moisture storage between crops. Another thing is that crop rotation control diseases. Parasites live over in the soil tend to accumulate when the same crops are grown. That is how important crop rotation is.

Furthermore, Kristiansen, *et al*, (2006) stated that cover crops increase the field of subsequent crops as well as to improve the friability of soil. Brought about by the increase in the content of organic matter through cultivation, cover crops also prevent the leaching of nutrients. The truth is that organic matter increases the water as well as minerals holding capacity of sandy soils.

Improving crop rotation, using organic tillage, conserving crop residues, using organic amendments such as animal manures and compost, practicing specific erosion

control measures are some of the position steps to better soil organic matter (Magdoff and Weil, 2004).

Organic farming contributes benefits through economics, environment, health and social. Farmer who grows organic benefits not only their families but also to its community and consumers. Harmful farm chemicals no longer percolate into the water supply where health problems in communities maybe avoided. Potential benefits of organic foods for consumers are not just related to the absence of herbicides and pesticides but rather organic products are higher vitamins, minerals and anti-oxidants. Economic benefits includes reduced used of pesticides and increasing biodiversity of organic farms and restore habitats for beneficial animals, insect and plants. Organic farming is often about building relationships and connections. A network develops and flourishes (Wikipedia 2009).

Organic farming has an advantage as well as disadvantages. The most important advantage of organic farming is that it maintains the life of the soil, not only for current generation but also for future generations. Water pollution is reduced by organic farming. A French study reveals that the nutritional quality and micro-nutrients are present in higher quantities in organically produced crops. Micro-nutrients promote good health. Organically grown foods taste better. The life also of organically grown crop is longer than the plants cultivated by traditional methods. Organically grown plant is more droughts tolerant. Low production is the first organic farming disadvantage. One more thing is that organically produced are expensive which is not favorable to customers. The cost is very often 50-100 percent more than the traditional one. Organically produced also



are not always available because organic farmers grow crops in accordance to the season (Wikipedia, 2009).

The increase demand for organically grown food has reflected consumers' concern with food safety, genetically modified foods, pesticides residues, and the environmental impact of conventional agriculture.

Given the supply in demand for organic foods, it would be valuable to communicators, educators and Extension professionals to understand non-organic farmers' attitudes toward organic agriculture in their barriers to adoption. Previous studies have revealed possible economic, health, and technical barriers that influence nonorganic farmers' attitudes about adopting organic farming practices .Such studies explained why non-organic farmers did not consider organic production as economically feasible. Austrian farmers, for example, did not adopt organic practices for the following reasons: no compensation payments for organics and no willingness to forego net income for benefits of environmentally friendly farming. The loss on return on organic products would have affected British farmers' ability to pay their mortgage. Large scale, nonorganic farmers in South Africa considered fewer marketing opportunities, no premium prices, and the lack of subsidies as economic factors keeping them from adopting organic practices.

Research has shown that chemical use is a health related barrier toward adopting organic farming. In New Zealand, 54 out of 62 farmers were not interested in organic farming because they were not concerned with chemicals in for. Another health barrier was that neither farmers nor their family members have personally experienced illness from the use of such chemicals.



Research has shown that technical feasibility was another factor farmers consider when forming their attitudes toward organic farming. According to, Austrian cash-crop producers hesitated to adopt organic production due to problems with weeds, diseases and insects, and additional labor requirements. In a study done in South Africa, large scale non-organic farmers listed yield reductions, higher weed and pest infestations, and more diseases damage on crops as problems associated with the conversion process. Farmers express their anxiety about crop diseases when farming organically because they considered the information about organic farming insufficient.

Studies have analyzed various demographic characteristics to determine how they relate to attitudes toward organic farming methods. The most frequently studied characteristics were years of farming experience, family farming tradition, age, education level, and gender (Hall, 2009).

Bakun is the fourth municipality in the Province of Benguet, Philippines. About the Bakun geography, it is bounded on the north by the municipality of Cervantes, Ilocos Sur and municipalities of Buguias and Mankayan, and on the west by the municipalities of Sugpon and Alilem of the Ilocos Sur province. Bakun is 336 kilometer away from Manila and 86 kilometer away from Baguio.

During the Spanish period, Bakun was a rancheria (towns) of the Commandancia Politico-Militar de Amburayan while Ampusongan (currently a barangay of Bakun) was a rancheria of the Commandancia Politico-Militar de Tiagan, Distrito de Benguet. In 1900, when the United States took control of the Philippines, the American Congress in acted Act Number 48, placing Bakun under the Province of Amburayan and Ampusongan under the Benguet Province. On August 13, 1908, the municipal districts of



Bakun and Ampusongan became part of Benguet.In the early part of 1937, Ampusongan was merged with Bakun, the latter carrying the name of the township while the former became a barangay. Bakun existed until the enactment of Republic Act Number 4695 in 1966 when it was included in the newly created province of Benguet. Bakun is politically subdivided into seven barangay whish are the following; Ampusongan, Bagu, Dalipey, Gambang, Kayapa, Poblacion (Central) and Sinacbat, each of this barangay consist of different sitios (Wikipedia, 2009).

Cordillerano or Cordilleran is an unofficial and relatively recent term for the people of the hill tribes of Luzon, Philippines who are residing in the Cordillera and Caraballo mountains. This term is an attempt at political correctness, since a current term, Igorot, has caused controversy due to its perceived negative stigma and by the ignorance of individuals who did not really explore and study the area.

Based on the May 2000 census, Benguet has a total population of 330,129, which makes it the most populous province in the region, where Bakun is under this municipality.

Benguet is a homeland of several tribes, collectively referred as Igorot. Two of them, the Ibaloi in the Southeast and the Kankana-ey in the Northwest are the dominant tribes of Benguet.

Agriculture, mining, and tourism are the major industries of Benguet. Because of its temperate climate and high altitude, Benguet is an ideal place for producing vegetables like potatoes, Baguio beans, peas, strawberries, cabbage, lettuce, carrots and others (Wikipedia, 2009). Barangay Gambang as the main site of study has its origin. Hunters from" Awa" Tinec, Ifugao who shifted to cultivation inhabited Barangay Gambang. These hunters claimed that "KANAS" is their ancestor. Other pioneering clans of large descendants were Budas or Tingbaoen. Kulalat and Pesawen who have spread in the Barangay.

According to respondents, the first settlement area was located in sitios of Onasan and Pangawan. These areas have deposit of gold and copper minerals. The early settlers fashioned out different kind of pots out of these minerals. One of such is the large pan called SILYASI in local term. This utensil is usually used in big occasions like canaos and other traditional rituals. They also barter trades in neighboring barangay. Because of this, the GAMBANG or SILYASI as commonly named became known far and wide until it was adopted as its official name.

Gambang is one of the seven barangay of the Municipality of Bakun. The barangay has a total land area of 3,856.6169 hectares. Comprising of 36 sitios. Gambang Proper is located in a rolling foothill with an elevation of 1400 masl. Mt. Usdong with an with an elevation of 2618 masl is located on the Northern part of the barangay. This is considered as the highest elevation in the barangay. Other portions of the community like Sinipsip, Cagam-is, and Alibacong have 2000, 500 and 2200 meters above sea level, respectively.

Gambang is bounded on the North by the Municipality of Mankayan. Barangay Amgaleyguey and Lengaoan of Buguias on the Eastern part, on the South by Barangay Ampusongan and Barangay Dalipey of Bakun on the Western portion.

The barangay is located along the Halsema Highway. Gambang Bakun is about 16 kilometers away from the municipal center (Ampusongan), 64 kilometer away from the Provincial Capitol (La Trinidad) and approximately 70 kilometer away from Baguio City.

Barangay Gambang has two seasons, the wet and the dry season. The dry season is from the month of November to April while rainy season occurs during the remaining months of the year. Extreme heat is experienced during summer particularly on the months of March and April. This causes the reduction of water from the spring and other sources of irrigation particularly in the elevated portion of the barangay. Typhoons and monsoon rains likewise are pronounced during months of June to September, which sometimes destroy rice fields and other related cash-crops.

Frosting is observed from December to February at Mt. Usdong and its surrounding communities. The temperature ranges from 14-24 degrees centigrade, which is classified as type 1. However, in the months of November to the second week of February the temperature ranges from 12-21 degrees centigrade.

The soil type of the community is classified as clay, clay loam and sandy loam. However, there are areas in the community where soil acidity is a problem. This observed as the result of continuous cropping and extensive use of commercial fertilizers and other chemical inputs. The soil in the barangay is very suitable to the production of highland vegetables.

The creeks, rivers and springs serve as sources of irrigation and domestic water supply of the whole community. Gambang River, the major river in the barangay comes from the mainstream of Gakian, Sitios Sinipsip and Sookan then joins the Suyoc River from Guinaoang, Mankayan and flows to Cervantes, Ilocos Sur and merge with the Abra River.



Barangay Gambang is composed of 672 households distributed in 36 sitios. Sitio Mogao has the most number of households, with 74 because it is where the school and other institutions are located, followed by sitios Bagtangan with 48, then Pilando with 45 and Alam-am with 41 households. Sitio Caaduan has the least number; with only one household because it is located along the boundary of Bakun and Buguias, according to the National Statistics Office (NSO) survey, all households in this sitios choose to be included in Amgaleyguey, an adjacent barangay of the municipality of Buguias, Benguet. Sitios Dalayap and Bolbolo are the second least populated with 4 households. This sitio is where most vegetable farm is located.

The crop production of Barangay Gambang is predominantly an agricultural area where vegetable farming is the primary source of income. Cash crops produce are cabbage with a total yield of 7375 tons harvested in the 175 hectares, white potato with 7,250 tons in 170 hectares, carrots with 2000 tons in 60 hectares, and Chinese cabbage with 1800 tons in 60 hectares. These commodities are the crops suitable in the area and are the common crops with a high demand from the traders. Palay with a total production of 25 tons from 5-hectare land is for home consumption. Likewise, crops like sweet potato, banana and coffee are produced for home consumption.

Main crops like cabbage, white potato, carrots, Chinese cabbage and palay are dependent on chemicals and pesticides and are organically applied with chicken manure, triple 14, 0-0-60, and 16-20. The rate of application is once in every planting or cropping season. Rate of pesticides and chemical application is minimal due to pressing issues of soil fertility depletion. Besides, the farmers are still using the traditional farming system. Lack of service deliveries from concerned government agencies on agriculture and agro



forestry contributes to traditional farming, inappropriate application of chemicals and fertilizer, and limited knowledge on new technology for farmers.

The existing agricultural support services in the area are eight communal irrigation systems (CIS) with a serviceable area of 106 hectares, with 128 households' beneficiaries. However, this CIS cannot irrigate far-flung farms because of insufficient water supply. There are also three (3) Potato Seed Storages, which can accommodate 5 tons of potato seed each. Two seed potato storage can accommodate 25 tons each. Lastly, an open canal type of irrigation serving sitio Labilab with 30 households' beneficiaries and an area of 10 hectares.

Generally, the market outlet of commercial crops is at La Trinidad Vegetable Trading Post (CHARMP 2002).

## Definition of Terms

Attitude. Opinion to something

<u>Agriculture</u>. The process of foods and goods through farming.

<u>Compost</u>. A mixture of partly broken organic material usually made up of leaves.

<u>Conventional farming</u>. The way of raising plants with the accepted usage of commercial pesticides and fertilizers.

Cover crops. Planting of crops that use to protect the soil and not allow weeds to

grow.

Crop rotation. Practice of growing a series of different crops in the same area.

<u>Cultivation</u>. Tilling the land to prepare for crops.

<u>Green manure</u>. Grown to be turned under for soil improvement while in succulent condition.



Organic agriculture. System of production that sustains the health of the health of environment.

<u>Pesticide</u>. Chemical use to kill pest that damaging crop.

Perception. View or understanding of an individual about something.

Synthetic fertilizers. Chemical component used for plants.





# METHODOLOGY

## Locale and Time of the Study

This study was conducted in Gambang, Bakun in order to determine the potential of promoting organic production in the area.

This research was conducted in December 2009.

# Respondents of the Study

There were 50 vegetable farmers as respondents. Selections of respondents were through random sampling.

# Data Gathering Procedure

Interview with farmers with the use of interview schedule was employed in gathering data needed in the study.

# Data Analysis

Data gathered were tabulated and analyzed using frequency counts and appropriate other statistical tools. Correlation analysis was done between the farmer and the farm profile and responses.



## **RESULTS AND DISCUSSION**

## Demographic Profile

The demographic profile of the respondents is presented in Table1.Table2 presents the membership of respondents to local organization and Table 3 presents the membership of respondents to farmers' organization as matched against years of membership.

Marital status. Majority of the respondents (76.0%) are married, of which 19 or 38.0% are female and 19 or 38.0% are male.

PARTICULARS	5		SEX		T	OTAL
	FEM	ALE	MA	LE	<b>F</b>	%
	F	%	М	%		
Marital status						
Single	3.0	6.0	5.0	10.0	8.0	16.0
Married	19.0	38.0	19.0	38.0	38.0	76.0
Separated	1.0	2.0	1.0	2.0	2.0	4.0
Widowed	2.0	4.0	.0	.0	2.0	4.0
TOTAL	25.0	50.0	25.0	50.0	50.0	100.0
Household size					3	
<3	1.0	2.0	2.0	4.0	3.0	6.0
3-5	14.0	28.0	5.0	10.0	19.0	38.0
6-8	9.0	18.0	14.0	28.0	23.0	46.0
9-11	1.0	2.0	1.0	2.0	2.0	4.0
12+	.0	.0	3.0	6.0	3.0	6.0
TOTAL	25.0	50.0	25.0	50.0	50.0	100.0
Ethnicity						
Kankana-ey	23.0	46.0	20.0	40.0	43.0	86.0
Ibaloi	2.0	4.0	3.0	6.0	5.0	10.0
Ilokano	.0	.0	2.0	4.0	2.0	4.0
TOTAL	25.0	50.0	25.0	50.0	50.0	100.0

Table 1. Respondents' demographic profile



Table 1 continued...

Education	F	%	М	%		
Elementary	9.0	18.0	12.0	42.0	21	42.0
Highshool	6.0	12.0	9.0	30.0	15	30.0
College	10.0	20.0	4.0	28.0	14	28.0
TOTAL	25.0	50.0	25.0	50.0	50	100.0

<u>Household size</u>. Most of the respondents belong to household size with 6-8 members.Nineteen (38.0%) have a household size of 3-5members.

Ethnicity. Most of the respondents (86.0 %) are kankana-ey, 23 (46.0%) are female and 20 (40.0%) are males. As cited by (Wikipedia, 2009), ibaloi and kankana-ey are the dominant tribes in Bakun Benguet.

Educational attainment. There were 21(42.0%) respondents who went to or finish elementary level, 15 (30.0%) of respondents reached high school while 14 (28.0%) finished college.

<u>Membership to local and farmer organizational</u>. Out of 50 respondents 12 (24.0%) respondents are registered to the local organization, of which 8 are member and 4 are officer only 3 have been member for more than 12 years while 9 (18.0%) have been member for 10 years or less.

PARTICUL	AR	ORGANIZA	TION	TOTAL	
		LOCA		F	%
		F	%		
Membership					
Of	ficer	4.0	8.00	4.0	8.00
Me	ember	8.0	16.0	8.0	16.0
TOTAL		12.0	24.0	12	24.0
Number of years	as				
member					
	3	1.0	2.00	1.0	2.0
	5	1.0	2.00	1.0	2.0
	8	1.0	2.00	1.0	2.0
	10	6.0	12.0	6.0	12.0
	12	1.0	2.00	1.0	2.0
	15	1.0	2.00	1.0	2.0
	19	1.0	2.00	1.0	2.0
TOTAL	R.	12.0	24.00	12.0	24.0

Table 2. Membership to organization level and membership to organization type

# Table 3. Membership to organizational type

		6		
PARTICULAR	ORGANIZA	TION	TOTAL	
	FARM	ERS	F	%
	F	%		
Membership	500		ST IN	
Officer	4.0	8.0	4.0	8.0
Member	8.0 —	16.0	8.0	16.0
TOTAL	12.0	24.0	12.0	24.0
Number of years as			. /	
member				
3	1.0	2.0	1.0	2.0
5	1.0	2.0	1.0	2.0
8	1.0	2.0	1.0	2.0
10	6.0	12.0	6.0	12.0
12	1.0	2.0	1.0	2.0
15	1.0	2.0	1.0	2.0
19	1.0	2.0	1.0	2.0
TOTAL	12.0	24.0	12.0	24.0

# Economic Profile

The economic profile of the respondents is presented in Table 4, which includes information on their annual income from farming and the other sources of their income aside from farming against to their household size.

<u>Other source of income</u>. There were 14 (28.0%) respondents have earned additional income from other source of which 7 (14.0%) of them have household sizes of 6-8 members. There were 4 (8.0%) respondents who earned 25000-44999 pesos yearly.

		. C 9 3						
PARTICULAR	1	H	OUSE	HOLD S	SIZE		TOT	ΓAL
	3-	5	6-	8	9-1	1	F	%
	F	%	F	%	F	%		
Other source			/	24	· 1			
of income								
Beautician	1	2.0	0	0.0	0	0.0	1.0	2.0
Driver	1	2.0	1	2.0	0	0.0	2.0	4.0
LGO officer	0	0.0	2	4.0	0	0.0	2.0	4.0
Pordia	1	2.0	2	4.0	0	0.0	3.0	6.0
Repair shop	1	2.0	0	0.0	0	0.0	1.0	2.0
Retailing	2	4.0	1	2.0	1	2.0	4.0	8.0
Security	0	0.0	1	2.0	0	0.0	1.0	2.0
TOTAL	6	12.0	7	14.0	1	2.0	14.0	28.0
Income from			E	•	/			
other source								
<25000	1	2.0	- 1	2.0	1	2.0	3.0	6.0
25000-44999	1	2.0	3	6.0	0	0.0	4.0	8.0
85000+	0	0.0	1	2.0	0	0.0	1.0	2.0
TOTAL	2	4.0	5	10.0	1	2.0	8.0	16.0

Table 4. Other source of income



### Farm Demographic

The farm demographic profiles of respondents are matched to their economic profile. Table 5 presents the tenure status and farm size of respondents against years in farming. Table 6 presents the farm type and soil characteristics against each respondents farm size. Table 7 shows the main crops of respondents against farm size of respondents. Table 8 shows the volume and value of their crops.

<u>Tenure status</u>. Majority 24 (48.0%) of the respondents owned their farm land.Forteen (28.0%) are share tenants and 10 (20.0%) claim ancestral domain.

Farm size. Most 32 (64.0%) of the respondents had a farm of 0.0-1ha.area.

PARTICULAR		Ţ	Т	TOTAL								
	<	5	5-	17	18	-30	31	-43	44	1+	F	%
10	F	%	F	%	F	%	F	%	F	%		
Tenure	$ \land$							1				
Owner	0	0.0	11.0	22.0	9	18.0	3	6.0	1	2.0	24	48.000
Share	4	8.0	7.0	14.0	3	6.0	0	.0	0	.0	14	28.000
tenant												
Leasehold	0	0.0	0.	00.0	74	2.0	0	.0	0	.0	1	2.000
Ancestral	0	0.0	6.0	12.0	4	8.0	0	.0	0	.0	10	20.000
domain				1		TE	•					
TOTAL	4	8.0	24.0	49.0	17	34.0	3	6.0	1	2.0	49	100.000
Farm Size												
<1ha	0	0.0	9.0	18.0	6	12.0	0	.0	0	.0	15	30.000
0.5-1ha	4	8.0	16.0	32.0	10	20.0	1	2.0	1	2.0	32	64.000
>1ha	0	0.0	0.0	.0	1	2.0	2	4.0	0	.0	3	6.000
TOTAL	4	8.0	25.0	50.0	17	34.0	3	6.0	1	2.0	50	100.000
												X <sup>2</sup> =.002

Table 5. Tenure status and farm size



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<u>Years of farming</u>. Almost half has been farming for 5-17 years and 17 (34.0%) has been farming for 18-30 years. Majority 32 (64.0%) have a farm area of 0.5-1ha area.

Farm type of respondents. Majority 36 (72.0%) of the respondents have type of farm which is upland rainfed most of them source their irrigation from rain. Eighteen (36.0%) of respondents have upland irrigation farm type of which 32 (64.0%) of respondents had a land area of of 0.5-1ha. As cited by (CHARMP 2002), the creeks, rivers and springs serve as sources of irrigation and domestic water supply of the whole community.

Soil characteristics of respondents. Majority 35 (70.0%) of the respondents have sandy type of soil in their farm, 28 (56.0%) have loamy soil and 8 (16.0%) have a clay type of soil. Majority 32 (64.0%) had a land area of 0.5 to 1hectare.The (CHARMP 2002), stated that, the soil type of Gambang is classified as clay; clayloam and sandyloam. However, there are areas in the community where soil acidity is the problem.

This observed as the result of continuous cropping and use of synthetic pestici and fertilizers.

		FARM	<b>A SIZE</b>		TO	ΓAL	
<1	ha	0.5-	1ha	>1h	a	F	%
F	%	F	%	F	%		
0	.0	4.0	8.0	0	0.0	4.0	8.0
9	18.0	16.0	32.0	0	0.0	25.0	50.0
6	12.0	10.0	20.0	1	2.0	17.0	34.0
0	00.0	1.0	2.0	2	4.0	3.0	6.0
0	00.0	1.0	2.0	0	0.0	1.0	2.0
15	30.0	32.0	64.0	3	6.0	50.0	100.0
	F 0 9 6 0 0	$\begin{array}{cccc} 0 & .0 \\ 9 & 18.0 \\ 6 & 12.0 \\ 0 & 00.0 \\ 0 & 00.0 \end{array}$	<1ha         0.5-           F         %         F           0         .0         4.0           9         18.0         16.0           6         12.0         10.0           0         00.0         1.0           0         00.0         1.0	F         %         F         %           0         .0         4.0         8.0           9         18.0         16.0         32.0           6         12.0         10.0         20.0           0         00.0         1.0         2.0           0         00.0         1.0         2.0	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c c c c c c c c c c c c c c c c c c c $

Table 6. Farm demographic profile



Table 6 continued...

Farm type								
Upland irrigated	7	14.0	9.0	18.0	2	36.0	18.0	36.0
Upland rainfed	7	14.0	26.0	52.0	3	6.0	36.0	72.0
Lowland rainfed	1	2.0	1.0	2.0	0	0.0	2.0	4.0
TOTAL	15	30.0	32.0	64.0	3	6.0	50.0	100.0
Soil characteristics								
Loamy	7	14.0	18.0	36.0	3	6.0	28.0	56.0
Clay	4	8.0	4.0	8.0	0	0.0	8.0	16.0
Sandy	9	18.0	24.0	48.0	2	4.0	35.0	70.0
TOTAL	15	30.0	32.0	64.0	3	6.0	50.0	100.0

<u>Crops of respondents</u>. Table 7 presents that most plants chinese cabbage and carrots, majority 41 (82.0%) respondents plants potato. Twenty-seven (54.0%) who are potato producers have farm area of 0.5-1ha, and 26 (52.0%) who are cabbage producers also operates 0.5-1ha land area. Main crops of Gambang Bakun are cabbage, potatoe, carrots and chinese cabbage as cited by the (CHARMP 2002).





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PARTICULAR			FARM	A SIZE		TO	ΓAL	
	<1	ha	0.5-	1ha	>11	ia	F	%
	F	%	F	%	F	%		
Crops								
Potato	12.0	24.0	27.0	54.0	2	4.0	41.0	82.0
Chinese cabbage	5.0	10.0	9.0	18.0	1	2.0	15.0	30.0
Carrot	6.0	12.0	17.0	34.0	3	6.0	26.0	52.0
Gardenpea	3.0	6.0	4.0	8.0	1	2.0	7.0	14.0
Cabbage	5.0	10.0	26.0	52.0	2	4.0	32.0	64.0
Brocoli	2.0	<mark>4.0</mark>	5.0	10.0	. 1	2.0	9.0	18.0
Pepper	0.0	.0	1.0	2.0	0	0.0	2.0	4.0
Beans 6	2.0	4.0	3.0	6.0	0	0.0	5.0	10.0
Raddish	2.0	4.0	3.0	6.0	0	0.0	5.0	10.0
lettuce	0.0	.0	1.0	2.0	0	0.0	1.0	2.0
Green onions	0.0	.0	1.0	2.0	0	0.0	1.0	2.0
TOTAL	15.0	30.0	32.0	64.0	3	6.0	50.0	100.0



<u>Crops volume and value</u>. Majority 28 (56.0%) of respondents'are potato producers. There were 33 (66.0%) respondents harvest 1000-3000 kilograms to the different crops produce and majority 43 (86.0%) sell their different crops for 15-30 pesos per kilogram.

Table 8. Crops volume and value

PARTICULAR										CF	ROPS												то	TAL
TAKIICULAK	POT	ATO		NESE BAGE	CAR	ROT		RDEN PEA	CABB		BROG	COLI	PE	PPE R	BE	EANS	RAD	ISH	LETT	UCE	GRE ONIC		F	%
	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%		
Volume								-				/	/				15							
<1000	1.0	2.0	0	.0	0.0	0.0	3	6.0	.0	0.0	0	.0	1	.2	1	.2	0	.0	1	.2	0	.0	7.0	14.0
1000-3000	14.0	28.0	1	2.0	6.0	12	3	6.0	3.0	6.0	1	.2	0	.0	3	.6	1	.2	0	.0	1	2	33.0	66.0
3001-5000	5.0	14.0	3	6.0	4.0	8.0	0	.0	8.0	16.0	- 1	.2	0	.0	0	.0	0	.0	0	.0	0	.0	21.0	42.0
5001-7000	2.0	8.0	3	6.0	1.0	2.0	0	.0	3.0	6.0	0	.0	0	.0	1	.2	0	.0	0	.0	0	.0	10.0	20.0
7001-9000	3.0	6.0	1	2.0	3.0	6.0	0	.0	5.0	10.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	12.0	24.0
9001-11000	3.0	6.0	0	.0	2.0	4.0	0	.0	4.0	8.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	9.0	18.0
>11000	.0	0.0	0	.0	1.0	2.0	0	.0	1.0	2.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	2.0	4.0
TOTAL	28.0	64.0	8	16.0	17.0	34.0	6	12.0	24.0	48.0	2	.4	-1	.2	5	10.0	1/	.2	1	.2	1	2	94.0	172.0
Value									70					9			-							
<15	4.0	8.0	8	16.0	10	20	0	.0	14.0	28.0	1	.2	0	.0	1	.2	3	.6	1	.2	0	.0	42.0	84.0
15-30	22.0	44.0	1	2.0	6.0	12	2	4.0	6.0	12.0	1	.2	0	.0	3	.6	1	.2	0	.0	1	2	43.0	86.0
31-45	1.0	2.0	0	.0	.0	0.0	0	.0	0.0	0.0	0	.0	1	.2	0	.0	0	.0	0	.0	0	.0	2.0	4.0
46-60	1.0	2.0	0	0.0	.0	0.0	2	4.0	0.0	0.0	0	.0	0	.0	1	.2	0	.0	0	.0	0	.0	4.0	8.0
>105	0.0	.0	0	0.0	.0	0.0	2	4.0	0.0	0.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	2.0	4.0
TOTAL	28.0	56.0	9	18	16.0	32	6	12.0	200.0	40.0	2	.4	1	.2	5	10.0	4	.8	1	.2	1	2	93.0	186.0



#### Awareness on Organic Farming

Table 9 shows the awareness of respondents on organic farming based to their educational attainment, farmsize, age, householdsize, and number of years in farming. Organic farming component, source of information for those who are aware of organic farming and the factors affecting the respondents on the non-adoption of organic farming.

With the chi-square coe-fficient of each table, it indicates that there is no significant difference in replies of respondents between awareness on organic farming to their demographic profile.Not all respondents replied on the awareness to organic farming component it implies that they are not aware of it.

Education. More (42%) of the farmers who had at least reached or finished elementary or highschool were not aware of organic farming as compared to those who were aware (14%) on the other hand ,there were more (20%) farmers who reached college level who were aware of organic farming then just a few who were not aware of it.

<u>Farm size</u>. Majority thirty-two (64.0%) of the respondents had a land area of 0.5-1ha, 16 (32.0%) respondents are aware of organic farming and 16 (32.0%) of the respondents are not aware of it. Majority 26 (52.0%) respondents are not aware of organic.

<u>Age</u>. There were 19 (38.0%) respondents are in age bracket of 25-37 years, 12 (24.0%) are aware of organic, seven (14.0%) are not aware. Twenty-six (52.0%) respondents out of 50 are not aware of organic base on their age.

<u>Household</u>. Most (46.0%) of the respondents belong to household size 6-8 member.Eleven (22.0%) are aware of organic farming compared it to those who are not aware of it which is (24.0%).Out of 50 respondents, (52.0%) of the t respondents are not aware of organic farming based on the household size of respondents.

<u>Number of Years in Garming</u>. One half (50.0%) of the respondents were engaged in farming within 5-17 years, 12 (24.0%) are aware of organic farming while 13 (26.0%) of them are not aware of it.Twenty-six (56.0%) respondents who are not aware compared it to those who are aware which is (48.0%) this is based on the number of years respondents engaged in farming.

Awareness on the component of organic farming. As stated by (Wikipedia, 2009) organic farming is the form of agriculture that relies on crop rotation, green manuring, compost, biological pest control, excluding or limiting the use of synthetic fertilizers and pesticides.Nine (18.0%) respondents are aware of crop rotation. One (2.0%) is aware of green manuring, four (8.0%) are aware of compost .One (2.0%) is aware of biological pest control. Two (4.0%) aware of excluding or limiting the use of synthetic fertilizer and pesticides, and two (4.0%) are aware of liquid bio-fertilizers.Most 15 (30.0%) of the respondent are aware on organic farming.

Factors that is responsible for non-adoption of organic farming. There were 16 (32.0%) respondents had a reason of nobody is practicing organic farming in their community that is why they could not be able to adopt organic farming.Twenty-three (46%) respondents said that they are not aware of organic farming.

<u>Organic material used</u>. There were 12 (24.0%) respondents are practicing crop rotation, 9 (18.0%) are aware of organic farming and 3 (6.0%) are not aware. Total

average shows that there were 13 (26.0%) of the respondents are not aware of organic farming.

Source of information about organic farming. There were 17 (34.0%) respondents get information of organic farming through radio. Seven (14.0%) get information of organic farming to Department of Agriculture Technicians. Seven (14.0%) respondents get information to neighbors. Four (8.0%) respondents have knowledge on organic farming through the help of pamphlets/brochures/posters of organic farming. Three (6.0%) get information through the farmer's cooperative or association. Two (4.0%) respondents get information through newspaper and two (4.0%) is through their relatives.

Source of organic material used. There were six (12.0%) of the respondents are using weeds as organic fertilizers. Eight (16.0%) of the respondents are aware of organic and two (4.0%) are not aware of it.

PARTICULAR	· · · · · · · · · · · · · · · · · · ·					TOTAL
	AWARE	ON 7AV	NOT AWAF	F	%	
	ORGANIC FARMING		ORGANIC FARMING			
	F	%	F	%		
Education						
Elementary	7	14.0	14	28.0	21	42.000
Highshool	7	14.0	8	16.0	15	30.000
College	10	20.0	4	8.0	14	28.000
TOTAL	24	48.0	26	52.0	50	100.000
						X <sup>2</sup> =.086
Farm size						
<1ha	7	14.0	8	30.0	15	30.000
0.5-1ha	16	32.0	16	64.0	32	64.000
>1ha	1	2.0	2	6.0	3	6.000
TOTAL	24	48.0	26	52.0	50	100.000
						X <sup>2</sup> =.086

Table 9. Awareness on organic farming



Table 9 continued...

PARTICULAR					Т	OTAL
	AWARE ON OR	GANIC	NOT AWA	F	%	
	FAMINO	ĩ	ORGANIC FA			
_	F	%	F	%		
Age						
<25	2.0	04.0	4.0	8.0	6	12.000
25-37	12.0	24.0	7.0	14.0	19	38.000
38-50	5.0	10.0	10.0	20.0	15	30.000
52-64	5.0	10.0	4.0	8.0	9	18.000
65+	0.0	00.0	1.0	2.0	1	2.000
TOTAL	24.0	48.0	26.0	52.0	50	100.000
						X <sup>2</sup> =.321
Household size						
<3	1.0	2.0	2.0	4.0	3	6.000
3-5	9.0	18.0	10.0	20.0	19	38.000
6-8	11.0	22.0	12.0	24.0	23	46.000
9-11	2.0	4.0	0.0	.0	2	4.000
12+	1.0	2.0	2.0	4.0	3	6.000
TOTAL	24.0	48.0	26.0	52.0	50	100.000
						X <sup>2</sup> =.611
Farming Years						
<5	1.0	2.0	3.0	6.0	4	8.000
5-17	12.0	24.0	13.0	26.0	25	50.000
18-30	9.0	18.0	8.0	16.0	17	34.000
31-43	2.0	4.0	1.0	2.0	3	6.000
44+	0.0	00.0	1.0	2.0	1	2.000
TOTAL	24.0	48.0	26.0	52.0	50	100.000
						X <sup>2</sup> =.671

Table 9 continued...

PARTICULAR				TOT	TOTAL	
	AWARE ON ORGANIC FARMING		NOT AWARE ON ORGANIC		F	%
			FARM	FARMING		
	F	%	F	%		
Aware of O.F component						
Crop rotation	8.0	16.0	1.0	2.0	9.0	18.0
Green manuring	1.0	2.0	.0	.0	1.0	2.0
Compost	3.0	6.0	1.0	2.0	4.0	8.0
Exclude/limit use	1.0	2.0	.0	.0	1.0	2.0
Liquid bio-fertilizers	2.0	4.0	.0	0.0	2.0	4.0
TOTAL	15.0	30.0	2.0	12.0	17.0	34.0
Source of Information about O.F						
Department of Agriculture	7.0	14.0	00	.000	7.0	14.0
Television	3.0	6.0	00	.000	3.0	6.0
Newspaper	2.0	4.0	00	.000	2.0	4.0
Neighbors	7.0	14.0	00	.000	7.0	14.0
Pamphlets/brochure	4.0	8.0	00	.000	4.0	8.0
Radio	17.0	34.0	00	.000	17.0	34.0
Farmers cooperative	3.0	6.0	00	.000	3.0	6.0
Relatives	2.0	4.0	00	.000	2.0	4.0
TOTAL	45.0	90.0	00	.000	45.0	90.0
Organic material used		,				,
Crop Rotation	9.0	18.0	3.0	6.0	12.0	24.0
Green manuring	1.0	2.0	0.0	.0	1.0	2.0
Compost	4.0	8.0	1.0	2.0	5.0	10.0
Exclude/limit use	2.0	4.0	0.0	.0	2.0	4.0
Liquid bio-fertilizer	2.0	4.0	2.0	4.0	4.0	8.0
TOTAL	18.0	36.0	6.0	12.0	24.0	48.0
Organic material source			0.0	1210	20	
Weeds	5.0	10.0	1.0	2.0	6.0	12.0
Any vegetable	1.0	2.0	1.0	2.0	1.0	2.0
Radio	2.0	4.0	3.0	6.0	3.0	6.0
Farm supply	1.0	2.0	1.0	2.0	1.0	2.0
TOTAL	9.0	18.0	6.0	12.0	11.0	22.0
Factor for non-adoption	2.0	1010	010	12.0	1110	22.0
Nobody inform me about O.F	00	0.00	8.0	16.0	8.0	16.0
There is no available	00	0.00	16.0	32.0	16.0	32.0
information in the locality	00	0.00	10.0	52.0	10.0	52.0
Nobody is practicing O.F	00	0.00	16.0	32.0	16.0	32.0
in our locality	00	0.00	10.0	52.0	10.0	52.0
TOTAL	00	0.00	23.0	46.0	23.0	46.0
IOIAL	00	0.00	23.0	+0.0	23.0	-0.0



#### Awareness on Government Support

Table 10 shows the government support the respondents are aware of this includes the information on the technical support, materials support and the financial support.Only few respondents replied this implies that majority are not aware to government supports.

<u>Financial support and source of financial support.</u> There were ten (20.0%) of the respondents are aware of the financial support in terms of credits or loans. Seven (14.0%) of the respondents source their financial support to private persons or companies, 1 (2.0%) is from vegetable retailers, 2 (4.0%) is from businessperson's, total of seven (14.0%) respondents are aware of financial support but not from the government.

<u>Material support and source of material support.</u> Seven (14.0%) respondents are aware of seeds support. Seven (14.0%) get material support from private persons or companies and not from the government. Seven (14.0%) respondents aware of fertilizers support from private person. Three (6.0%) are aware of the equipment support but from private persons not from the government.

<u>Technical support and source of technical support</u>. Seven (14.0%) respondents who are aware to the participation to seminars or trainings, seven (14.0%) respondents attend seminars or trainings from private companies. Seven (14.0%) respondents are aware on the visitation of agriculturist or technicians and two (4.0%) respondents have ideas on the provision of IEC materials. Most of this supports comes from private person or companies and not from government.



# Table 10a. Financial support

	S	OURCE	E OF FINANCI	AL SU	PPORT		ТО	TAL
FINANCIAL SUPPORT	COM- PANIES	%	VEGE- TABLE RETAILER	%	BUSI- NESSM AN	%	F	%
	F	%	F	%	F	%		
Credit/loan	7	14.0	1	2.0	2	4.0	10	20.0
Market	2	4.0	0	.0	0	.0	2	4.0
TOTAL	7	14.0		2.0	2	4.0	10	20.0
MATERIAL S	C HSTR		SOURCE	OF MA	TERIAL SU	JPPOR	RT	
			SOURCE	OF MA	TERIAL SU	JPPOR	RТ	
MATERIALS			DDULATE	DEDGC	NOD COM			
	UPPORT			PERSC	ON OR COM		ES	
	UPPORT		PRIVATE F	PERSC		IPANII %	ES	
Material Support	UPPORT			PERSC			ES	
	UPPORT	Ranch.		PERSC		%	ES	
Material Support		2.4.RO.H	F	PERSC		% 0	ES	
Material Support Seeds	UPPORT		F	PERSC	14	% 0	ES	



### Table 10c. Technical support

	SOUR	CE OF TECH	NICAL SU	JPPORT	ТОТ	AL
TECHNICAL SUPPORT	AGRI	CULTURIST	COM	PANIES	F	%
-	F	%	F	%	-	
	ľ	70	1,	70		
Participation to						
seminars	0	.0	7.0	14.0	7.0	14.0
Provision of IEC materials	1	2.0	1.0	2.0	2.0	4.0
Visitations of technicians	3	6.0	4.0	8.0	7.0	14.0
TOTAL		10 m				
	3	6.0	12.0	24.0	15.0	30.0

### Environmental Factors of Non-adoption of Organic Farming

<u>Internal factors</u>. Table11 shows the internal factors respondents see on preventing them from adapting organic farming against respondent's demographic profile.

<u>Age</u>. Majority 38 (76.0%) respondents had an inadequate knowledge to organic farming that affect them not to adapt organic farming. Seventeen (34.0%) of the respondents who had an inadequate knowledge to organic farming is in age bracket of 25-37 years. It indicates that most of the respondents who had an inadequate knowledge to organic farming are those who had 25-37 years.

<u>Household size</u>. Majority 38 (76.0%) respondents had an inadequate knowledge to organic farming that affect them not to adapt organic farming. Seventeen (34.0%) of the respondents who had an inadequate knowledge to organic farming is in the household size bracket of 3-5 members. Sixteen (32.0%) is in the household size bracket of 6-8



members. It indicates that most of the respondents who had an inadequate knowledge to organic farming are those who belong to 3-5 and 6-8 members.

## External factors

External factors affect respondents on the non-adaption of organic farming presented in table 12.

Age. Majority 31 (62.0%) of the respondents agree that there is no safety net instituted by the government in case their farm failed that affect them not to adapt organic. Fifteen (30.0%) respondents are in age bracket of 25-37 years.

<u>Household size</u>. There were 31 (62.0%) respondents agree that there is no safety net instituted by government in case their farm failed which affect them not to adapt O.F.Seventeen (34.0%) is in household size bracket of 6-8 members.



PARTICULAR								INTER	RNAL FA	CTORS									TO	TAL
	INFEI	RIOR	SLC	W	INADEQ	QUATE	N	OT	UNSAN	ITARY	LC	OW	N	0	LABO	OROUS	L	OW	F	%
	QUAI		EFFE	ECT	KNOWI	EDGE		ENIENT			YII	ELD		BLE			INC	COME		
	OF CF	ROPS					-	PPLY					MAR	RKET					-	
	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%		
Age																				
<25	1	2.0	2.0	4.0	4.0	8.0	3.0	6.0	1	2.0	3.0	6.0	2.0	4.0	2	4.0	0	.0	3.0	6.0
25-37	2	4.0	5.0	10.0	17.0	34.0	9.0	18.0	1	2.0	4.0	8.0	5.0	10.0	2	4.0	2	4.0	19.0	38.0
38-50	1	2.0	4.0	8.0	11.0	22.0	7.0	14.0	1.0	2.0	3.0	6.0	5.0	10.0	2	4.0	2	4.0	22.0	44.0
52-64	0	0.0	1.0	2.0	6.0	12.0	2.0	4.0	- 1	2.0	1.0	2.0	1.0	2.0	1	2.0	1	2.0	2.0	4.0
65+	0	0.0	1.0	2.0	0.0	00.0	0.0	0.	0	0.0	1.0	2.0	.0	.0	0	0.0	0	.0	3.0	6.0
TOTAL	4	8.0	13.0	26.0	38.0	76.0	21.0	42.0	4	8.0	12.0	24.0	13.0	26.0	7	14.0	5	10.0	49.0	98.0
Household size							5			/ /		101								
<3	0	0.0	1.0	2.0	1.0	2.0	1.0	2.0	0	0.0	1.0	2.0	.0	.0	0	0.0	1	2.0	3.0	6.0
3-5	1	2.0	3.0	6.0	17.0	34.0	8.0	16.0	1	2.0	2.0	4.0	7.0	14.0	2	4.0	0	.0	19.0	38.0
6-8	2	4.0	7.0	14.0	16.0	32.0	11.0	22.0	3	6.0	8.0	16.0	5.0	10.0	5	10.0	3	6.0	22.0	44.0
9-11	0	0.0	1.0	2.0	1.0	2.0	.0	.0	0	0.0	0.0	00.0	-1.0	2.0	0	0.0	1	2.0	2.0	4.0
12+	1	2.0	1.0	2.0	3.0	6.0	1.0	2.0	0	0.0	1.0	2.0	0.0	0.0	0	0.0	0	.0	3.0	6.0
TOTAL	4	8.0	13.0	26.0	38.0	76.0	21.0	42.0	4	8.0	12.0	24.0	13.0	26.0	7	14.0	5	10.0	49.0	98.0

Table 11. Internal factors that affect non-adoption





PARTIC	ULAR						EX	FERNAL I	FACTORS		CTORS				AL
		GOVER IN CAS	Y NET TED BY	NO LIN RESE TO H MAK SUCCI	ARCH IELP E O.F ESSFU	ESTAB MARK ORG	O LISHED ET FOR ANIC DUCTS	NO ST GOVER SUPPOR	NMENT	NO SUSTAI TECHNICAL S OF CONCEF AGENCII	UPPORT RNED	ACCRE GROUP	O DITING IN THE ALITY	F	%
		F	%	F	%	F	%	- F	<b>%</b>	F	%	F	%		
Age															
	<25	3.0	6.0	3.0	6.0	4.0	8.0	3.0	6.0	2.0	4.0	2.0	4.0	6.0	12.0
	25-37	15.0	30.0	8.0	16.0	8.0	16.0	10.0	20.0	8.0	16.0	8.0	16.0	19.0	38.0
	38-50	6.0	12.0	6.0	12.0	5.0	10.0	8.0	16.0	4.0	8.0	5.0	10.0	14.0	28.0
	52-64	6.0	12.0	3.0	6.0	2.0	4.0	4.0	16.0	5.0	10.0	2.0	4.0	9.0	18.0
	65+	1.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.0	2.0
TOTAL		31	62.0	20.0	40.0	19	38.0	25.0	50.0	19.0	38.0	17.0	34.0	49.0	98.0
Househo	ld size				15-	Ľ	10 6			150					
	<3	1.0	2.0	.0	.0	.0	.0	2.0	4.0	00	.0	3.0	6.0	3.0	6.0
	3-5	11.0	22.0	9.0	18.0	7.0	14.0	6.0	12.0	6.0	12.0	6.0	12.0	19.0	38.0
	6-8	17.0	34.0	10.0	20.0	8.0	16.0	14.0	28.0	12	24.0	11.0	22.0	22.0	44.0
	9-11	1.0	2.0	1.0	2.0	2.0	4.0	0.0	.0	1.0	2.0	.0	0.0	2.0	4.0
	12+	1.0	2.0	0.0	.0	2.0	4.0	3.0	6.0	.0	.0	.0	.0	3.0	6.0
TOTAL		31.0	60.0	20.0	40.0	19.0	38.0	25.0	50.0	19.0	38.0	17.0	34.0	49.0	98.0

1016

Table 12. External affect non-adoption



### Attitudes on Organic Farming

As cited by (Hall, 2009) studies have analyzed various demographic characteristics to determine how they relate to attitudes toward organic farming methods. The most frequently studied characteristics were years of farming, family farming tradition, educational level, gender and age.

<u>Slow effect of organic farming</u>. Table 13 presents the respondents opinion on whether organic farming has a slow effect. At an average the respondents are uncertain as to the time effect of organic farming. The chi-square coefficients indicate that there are no significant difference in opinion across demographic profile.

PARTICULAR	ATTITUDE RATING	DESCRIPTION
	(AVERAGE)	
Education /20		
Elementary	3.09	Uncertain
High school	3.40	Uncertain
College	3.57	Uncertain
TOTAL	3.53	Uncertain
	04 0 <sup>0</sup>	X <sup>2</sup> =.690
Farm size	742	5
<1ha	3.27	Uncertain
0.5-1ha	3.41	Uncertain
>1ha	2.70	Disagree
TOTAL	3.13	Uncertain
		X <sup>2</sup> =.012
Age		
<25	3.16	Uncertain
25-37	3.47	Uncertain
38-50	3.27	Uncertain
52-64	3.10	Uncertain
65+	1.00	Strongly Disagree
TOTAL	2.80	Disagree
		X <sup>2</sup> = .797

Table 13. Attitudes of respondents that organic farming has slow effect



PARTICULAR	ATTITUDE RATING	DESCRIPTION
	(AVERAGE)	
Age		
<25	3.16	Uncertain
25-37	3.47	Uncertain
38-50	3.27	Uncertain
52-64	3.10	Uncertain
65+	1.00	Strongly Disagree
TOTAL	2.80	Disagree
		$X^2 = .797$
Household size		
<3	3.67	Uncertain
3-5	3.11	Uncertain
6-8	3.35	Uncertain
9-11	4.00	Agree
12+	3.67	Uncertain
TOTAL	3.56	Uncertain
		X <sup>2</sup> =.899
Years in farming	5 0	
<5	4.50	Agree
5-17	3.72	Uncertain
18-30	3.82	Uncertain
31-43	4.33	Agree
44+	5.00	Strongly Agree
TOTAL	3.45	Uncertain
		X <sup>2</sup> =.119

Table13.continued...

Lower yield is obtained in organic farming. Table 14 presents the opinion of respondents if lower yield is obtained in organic farming. At an average the respondents are uncertain as to lower yields are obtained in organic farming. The chi-square coefficients of each table indicates that there are no significant difference in opinion across demographic profile of respondents.

PARTICULAR	ATTITUDE RATING (AVERAGE)	DESCRIPTION
Education		
Elementary	3.52	Uncertain
High school	3.27	Uncertain
College	3.57	Uncertain
TOTAL	3.45	Uncertain
		X <sup>2</sup> =.808
Farm size		
<1ha	3.53	Uncertain
0.5-1ha	3.43	Uncertain
>1ha	3.3	Uncertain
TOTAL	3.42	Uncertain
		X <sup>2</sup> =.612
Age		
<25	3.33	Uncertain
25-37	3.73	Uncertain
38-50	3.47	Uncertain
52-64	2.89	Disagree
65+	4.00	Agree
TOTAL	3.48	Uncertain
		X <sup>2</sup> =.810
Household size		
<3	3.00	Uncertain
3-5	3.26	Uncertain
6-8	3.78	Uncertain
9-11	2.50	Disagree
12+	3.33	Uncertain
TOTAL	3.17	Uncertain
	1016	X <sup>2</sup> =.042
Years in farming	4310	
<5	3.75	Uncertain
5-17	3.44	Uncertain
18-30	3.47	Uncertain
31-43	3.00	Uncertain
44+	4.00	Agree
TOTAL	3.40	Uncertain
		X <sup>2</sup> = .217

Table 14. Attitudes of respondents that lower yield are obtained in organic farming



<u>Organic products are inferior in quality</u>. Table 15 presents the respondents opinion if organic products are inferior in quality. At an average most of the respondents are uncertain if quality of organic products are inferior in quality. The chi-square coefficients of each table indicates that there are no significant difference in opinion across demographic profiles of respondents.

PARTICULAR	ATTITUDE RATING (AVERAGE)	DESCRIPTION
Education		
Elementary	3.71	Uncertain
High school	3.73	Uncertain
College	3.07	Uncertain
TOTAL	3.50	Uncertain
		X <sup>2</sup> =.333
Farm size		
<1ha	3.20	Uncertain
0.5-1ha	2.84	Disagree
>1ha	3.30	Uncertain
TOTAL	3.11	Uncertain
		X <sup>2</sup> =.575
Age	E. A.	
<25	3.17	Uncertain
25-37	3.79	Uncertain
38-50	3.40	Uncertain
52-64	3.67	Uncertain
65+	4.00	Agree
TOTAL	3.61	Uncertain
		X <sup>2</sup> =.781

Table 15. Attitudes of respondents in organic products is inferior in quality



Table 15 continued...

PARTICULAR	ATTITUDE RATING	DESCRIPTION
	(AVERAGE)	
Household size		
<3	3.67	Uncertain
3-5	3.32	Uncertain
6-8	3.83	Uncertain
9-11	5.00	Strongly Agree
12+	2.33	Disagree
TOTAL	3.63	Uncertain
		X <sup>2</sup> =.150
Years in farming		
<5	2.75	Disagree
5-17	3.56	Uncertain
18-30	3.71	Uncertain
31-43	4.00	Agree
44+	4.00	Agree
TOTAL	3.60	Uncertain
	AUT Sta	X <sup>2</sup> =.929

It is difficult to comply certification standards. Table 16 presents the opinion of respondents wether it is difficult to comply with certification standards of organic farming. At an average respondents are uncertain as to it is difficult to comply with certification standards of organic farming. The chi-square coefficient indicates that there are no significant difference in opinion across demographic profiles of respondents.



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PARTICULAR	ATTITUDE RATING	DESCRIPTION
	(AVERAGE)	
Education		
Elementary	3.67	Uncertain
Highshool	3.67	Uncertain
College	3.86	Uncertain
TOTAL	3.43	Uncertain
		X <sup>2</sup> =.404
Age		
<25	3.83	Uncertain
25-37	3.68	Uncertain
38-50	3.67	Uncertain
52-64	3.78	Uncertain
65+	4.00	Agree
TOTAL	3.61	Uncertain
		X <sup>2</sup> =.823
Household size	of the state of the	
<3	3.33	Uncertain
3-5	3.63	Uncertain
6-8	3.83	Uncertain
9-11	4.5	Agree
12+	3.33	Uncertain
TOTAL	3.72	Uncertain
	4	$X^2 = .658$
Years	A. 10	
<5	3.75	Uncertain
5-17	3.64	Uncertain
18-30	3.82	Uncertain
31-43	3.67	Uncertain
44+	4.00	Agree
TOTAL	3.78	Uncertain
		X <sup>2</sup> =.955

Table 16. Attitudes of respondents to it is difficult to comply with certification standard

<u>Conversion to organic farming does not give economic reward</u>. Table 17 presents the respondents opinion if conversion to organic farming does not give economic reward. At an average it shows that most of the respondents disagreed. Chi-square coefficient of each table present that there are no significant differences in opinion across demographic profile of respondents.

PARTICULAR	ATTITUDE RATING (AVERAGE)	DESCRIPTION
Education	(AVERAGE)	
Elementary	2.14	Disagree
Highshool	2.14 2.73	Disagree
College	2.73	Disagree
TOTAL	2.28	Disagree
IOTAL	2.38	$X^2 = .526$
Farm size		Λ
<1ha	2.60	Disagraa
		Disagree
0.5-1ha	2.25	Disagree
>1ha	2.30	Disagree
TOTAL	2.38	Disagree
		X <sup>2</sup> = .613
Age		
<25	2.17	Disagree
25-37	2.21	Disagree
38-50	2.40	Disagree
52-64	2.22	Disagree
65+	2.00	Disagree
TOTAL	2.20	Disagree
		X <sup>2</sup> =.917
Years in farming		
<5	2.25	Disagree
5-17	2.16	Disagree
18-30	2.59	Disagree
31-43	3.00	Uncertain
44+	2.00	Disagree
TOTAL	2.40	Disagree
IOTAL	2.70	$X^2 = .594$
		Λ

Table 17. An attitude of respondents in conversion to organic farming does not give economic rewards

Organic farming provides great opportunity for farmers to produce diversified products. Table 18 presents the opinion of respondents weather organic farming provide great opportunity for farmers to produce diversified products. At an average most of the respondents are uncertain. A chi-square coefficient indicates that there are no significant differences in opinion across demographic profiles of respondents.

PARTICULAR	ATTITUDE RATING (AVERAGE)	DESCRIPTION
Education		
Elementary	2.76	Disagree
Highshool	3.13	Uncertain
College	3.00	Uncertain
TOTAL	2.96	Disagree
		X <sup>2</sup> =.448
Farm size		
<1ha	3.20	Uncertain
0.5-1ha	2.81	Disagree
>1ha	3.00	Uncertain
TOTAL	3.00	Uncertain
	11 11	X <sup>2</sup> =.825
Age		
<25	2.67	Disagree
25-37	3.10	Uncertain
38-50	2.73	Disagree
52-64	3.22	Uncertain
65+	2.00	Disagree
TOTAL	2.74	Disagree
		X <sup>2</sup> =.359
Household size	10 <sup>-</sup>	
<3	3.33	Uncertain
3-5	3.11	Uncertain
6-8	2.65	Disagree
9-11	4.00	Agree
12+	3.00	Uncertain
TOTAL	3.22	Uncertain
		X <sup>2</sup> =.026
Years in farming		
<5	3.00	Uncertain
5-17	2.88	Disagree
18-30	3.00	Uncertain
31-43	3.33	Uncertain
44+	2.00	Disagree
TOTAL	2.84	Disagree
		X <sup>2</sup> =.502

Table 18. Attitude of respondents to organic farming provides great opportunity for farmers to produce diversified products

<u>There will be less risk of pollution in organic farming</u>. Table 19 presents the opinion of respondents if there will be less risk of pollution in organic farming. At an average majority of the respondents agreed that there is less risk of pollution in organic farming. A chi-square coefficient indicates that there are no significant differences in opinion across demographic profile of respondents.

PARTICULAR	ATTITUDE RATING (AVERAGE)	DESCRIPTION
Education		
Elementary	4.52	Agree
Highshool	4.47	Agree
College	4.57	Agree
TOTAL	4.52	Agree
		X <sup>2</sup> =.724
Farm size	ST. Sto.	
<1ha	4.30	Agree
0.5-1ha	4.62	Agree
>1ha	4.30	Agree
TOTAL	4.41	Agree
		X <sup>2</sup> =.343
Age		
<25	4.17	Agree
25-37	4.63	Agree
38-50	4.53	Agree
52-64	4.44	Agree
65+	5.00	Strongly agree
TOTAL	4.55	Agree
		X <sup>2</sup> =.278
Household size	70467	
<3	4.33	Agree
3-5	4.58	Agree
6-8	4.48	Agree
9-11	5.00	Strongly Agree
12+	4.33	Agree
TOTAL	4.54	Agree
		X <sup>2</sup> =.848
Years in farming		
<5	4.00	Agree
5-17	4.48	Agree
18-30	4.65	Agree
31-43	4.67	Agree
44+	5.00	Strongly Agree

Table 19. Attitude of respondents to there will be less risk of pollution in organic farming

It is very difficult to meet all inputs required on farm itself. Table 20 presents the opinion of respondents' whether it is difficult to meet all inputs required on farm itself. At an average majority of the respondents agreed that it is difficult to meet input requirements of farm itself, a chi-square it presents that there are no significant difference in opinions between demographic profiles of respondents.

PARTICULAR	ATTITUDE RATING (AVERAGE)	DESCRIPTION
Education		
Elementary	4.14	Agree
Highshool	4.07	Agree
College	4.43	Agree
TOTAL	4.21	Agree
		X <sup>2</sup> =.361
Farm size		
<1ha	3.93	Uncertain
0.5-1ha	4.34	Agree
>1ha	4.00	Agree
TOTAL	4.09	Agree
		X <sup>2</sup> =.122
Age	A. 5	
<25	3.83	Uncertain
25-37	4.31	Agree
38-50	4.27	Agree
52-64	4.00	Agree
65+	5.00	Strongly agree
TOTAL	4.28	Agree
		X <sup>2</sup> =.233
Household size		
<3	4.67	Agree
3-5	4.05	Agree
6-8	4.26	Agree
9-11	5.00	Strongly Agree
12+	3.67	Uncertain
TOTAL	4.33	Agree
		X <sup>2</sup> =.191
Years in farming		
<5	3.75	Uncertain
5-17	4.24	Agree
18-30	4.12	Agree
31-43	4.64	Agree
44+	5.00	Strongly Agree
TOTAL	4.36	Agree
		X <sup>2</sup> =.547

Table 20. Attitude of respondents' to it is very difficult to meet all inputs required on farm itself

<u>Organic farming is a method of balancing nutrients in farm ecosystem for a long</u> <u>run</u>. Table21 presents that most of the respondents are uncertain if organic farming balance nutrients in farm ecosystem for a long run, chi-square of its table presents that there are no significant difference in opinion across demographic profiles of respondents.

PARTICULAR	ATTITUDE RATING (AVERAGE)	DESCRIPTION
Education		
Elementary	3.71	Uncertain
Highshool	3.80	Uncertain
College	3.71	Uncertain
TOTAL	3.74	Uncertain
1- 1		X <sup>2</sup> =.448
Farm size		
<1ha	3.60	Uncertain
0.5-1ha	3.81	Uncertain
>1ha	3.67	Uncertain
TOTAL	3.69	Uncertain
		X <sup>2</sup> =.593
Age		
<25	3.50	Uncertain
25-37	3.95	Uncertain
38-50	3.47	Uncertain
52-64	3.89	Uncertain
65+	4.00	Agree
TOTAL	3.76	Uncertain
		X <sup>2</sup> =.664
Household size		
<3	3.67	Uncertain
3-5	3.68	Uncertain
6-8	3.70	Uncertain
9-11	5.00	Strongly Agree
12+	3.67	Uncertain
TOTAL	3.94	Uncertain
		X <sup>2</sup> =.256
Years in farming		
<5	3.50	Uncertain
5-17	3.72	Uncertain
18-30	3.70	Uncertain
31-43	4.33	Agree
44+	4.00	Agree
TOTAL	3.85	Uncertain
		X <sup>2</sup> =.386

Table 21. Attitude of respondents to organic farming is a method of balancing of nutrients in farm ecosystem for a long run

<u>Organic farming improves plant and animal as well as public health</u>. Table 22 presents the opinion of respondents to organic farming improves plant and animal health as well as public health, majority of the respondents' agreed. The chi-square coefficient indicates that there are no significant difference in opinion across demographic profile of respondents.

PARTICULAR	ATTITUDE RATING (AVERAGE)	DESCRIPTION
Education		
Elementary	4.57	Agree
High school	4.53	Agree
College	4.86	Agree
TOTAL	4.65	Agree
	AL IN	X <sup>2</sup> =.916
Farm size		
<1ha	4.47	Agree
0.5-1ha	4.60	Agree
>1ha	4.33	Agree
TOTAL	4.77	Agree
		X <sup>2</sup> =.545
Age		
<25	4.00	Agree
25-37	4.68	Agree
38-50	4.53	Agree
52-64	4.55	Agree
65+	5.00	Strongly Agree
TOTAL	4.55	Agree
		X <sup>2</sup> =.050
Household size		
<3	4.33	Agree
3-5	4.53	Agree
6-8	4.52	Agree
9-11	5.00	Strongly Agree
12+	4.33	Agree
TOTAL	4.55	Agree
		X <sup>2</sup> =.578
Years in farming	4.00	
<5	4.00	Agree
5-17	4.56	Agree
18-30	4.59	Agree
31-43	4.67	Agree
44+	5.00	Strongly Agree
TOTAL	4.56	Agree
		X <sup>2</sup> =.204

Table 22. Attitudes of respondents to organic farming improves plant and animal as well as public health

<u>Organic products are healthier because of presence of natural nutrients</u>. Table 23 presents the opinion of respondents whether organic products are healthier because of the presence of natural nutrients. At an average all respondents agreed that organic products are healthier due to the presence of natural nutrients. The chi-square coefficient indicates that there are no significant difference in opinion across demographic profile.

PARTICULAR	ATTITUDE RATING (AVERAGE)	DESCRIPTION
Education		
Elementary	4.52	Agree
High school	4.40	Agree
College	4.64	Agree
TOTAL	4.52	Agree
less.	51	X <sup>2</sup> =.824
Farm size		
<1ha	4.47	Agree
0.5-1ha	4.59	Agree
>1ha	4.00	Agree
TOTAL	4.35	Agree
		X <sup>2</sup> =.066
Age		
<25	4.33	Agree
25-37	4.58	Agree
38-50	4.47	Agree
52-64	4.56	Agree
65+	5.00	Strongly Agree
TOTAL	4.59	Agree
		X <sup>2</sup> =.864
Household size		
<3	4.33	Agree
3-5	4.47	Agree
6-8	4.57	Agree
9-11	5.00	Strongly Agree
12+	4.33	Agree
TOTAL	4.54	Agree
		X <sup>2</sup> =.559
Years in farming		
<5	4.25	Agree
5-17	4.52	Agree
18-30	4.53	Agree
31-43	4.67	Agree
44+	5.00	Strongly Agree
TOTAL	4.59	Agree
		X <sup>2</sup> =.911

Table 23. Attitude of respondents to organic products are healthier because of presence of natural nutrients

<u>Organic farming requires lower capital input</u>. Table 24 presents the opinion of respondents if organic farming require lower capital input. At an average respondents are uncertain as to organic farming require lower capital input, chi-square coefficient indicates that there are no significant difference in opinion across demographic profile.

PARTICULAR	ATTITUDE RATING (AVERAGE)	DESCRIPTION
Education		
Elementary	3.24	Uncertain
Highschool	3.13	Uncertain
College	3.43	Uncertain
TOTAL	3.27	Uncertain
		X <sup>2</sup> =.865
Farm size		
<1ha	3.33	Uncertain
0.5-1ha	3.28	Uncertain
>1ha	2.67	Disagree
TOTAL	3.09	Uncertain
J. J. J.		X <sup>2</sup> =.180
Age		
<25	2.67	Uncertain
25-37	3.47	Uncertain
38-50	3.13	Uncertain
52-64	3.22	Uncertain
65+	5.00	Strongly Agree
TOTAL	3.50	Uncertain
		X <sup>2</sup> =.617
Household size		
<3	3.67	Uncertain
3-5	3.37	Uncertain
6-8	3.00	Uncertain
9-11	4.50	Agree
12+	3.33	Uncertain
TOTAL	3.57	Uncertain
		X <sup>2</sup> =.347
Years in farming		
<5	3.00	Uncertain
5-17	3.28	Uncertain
18-30	3.24	Uncertain
31-43	3.00	Uncertain
44+	5.00	Strongly Agree
TOTAL	3.50	Uncertain
		X <sup>2</sup> =.504

Table 24. Attitude of respondents to organic farming requires lower capital input

There is no identified market for organic products in the locality. Table 25 presents the opinion of respondents to no identified market for organic products in the locality. At an average most of the respondents are agree that there is no market for organic products in the locality. However a chi-square of .002 for the age indicates a significant difference in opinion. Whereas those with age 25-37 years are uncertain, those with more than 65 years disagreed.

PARTICULAR	ATTITUDE RATING (AVERAGE)	DESCRIPTION
Education	619	
Elementary	3.86	Uncertain
Highshool	4.13	Agree
College	3.86	Uncertain
TOTAL	3.95	Uncertain
	9° 0	X <sup>2</sup> =.859
Farm size		
<1ha	3.37	Uncertain
0.5-1ha	3.93	Uncertain
>1ha	5.00	Strongly Agree
TOTAL	4.22	Agree
		X <sup>2</sup> =.120
Age		
<25	4.67	Agree
25-37	3.58	Uncertain
38-50	4.07	Agree
52-64	_4.22_	Agree
65+	2.00	Disagree
TOTAL	3.71	Uncertain
		X <sup>2</sup> =.002
Household size		
<3	4.33	Agree
3-5	3.95	Uncertain
6-8	3.74	Uncertain
9-11	4.50	Agree
12+	4.67	Agree
TOTAL	4.24	Agree
		X <sup>2</sup> =.968
Years in farming	4.00	
<5	4.00	Agree
5-17	3.88	Uncertain
18-30	4.02	Agree
31-43	3.00	Uncertain
44+	2.00	Disagree
TOTAL	3.28	Uncertain
		X <sup>2</sup> =.008

Table 25. Attitude of respondents to there is no identified market for organic products

<u>Farming will not be successful without the use of synthetic fertilizer, pesticides</u>. Table 26 presents the opinion of respondents' whether farming will not be successful without the use synthetic fertilizer and pesticides. At an average respondents are uncertain as to farming will not be successful without the use synthetic fertilizer and pesticides. Chi-square coefficient indicates that there are no significant difference in opinion across demographic profile.

Table 26. Attitude of respondents to farming will not be successful without the use of synthetic fertilizers and pesticides

PARTICULAR	ATTITUDE RATING (AVERAGE)	DESCRIPTION
Education		
Elementary	4.09	Agree
High school	3.87	Uncertain
College	3.57	Uncertain
TOTAL	3.84	Uncertain X <sup>2</sup> =.279
Farm size		
<1ha	3.87	Uncertain
0.5-1ha	3.87	Uncertain
>1ha	4.00	Agree
TOTAL	3.91	Uncertain
Arro		X <sup>2</sup> =.885
Age <25	4.33	Agree
25-37	3.74	Uncertain
38-50	3.87	Uncertain
52-64	3.78	Uncertain
65+	5.00	Strongly Agree
TOTAL	4.14	Agree
		X <sup>2</sup> =.211
Household size		
<3	4.33	Agree
3-5	3.74	Uncertain
6-8	4.00	Agree
9-11	3.00	Uncertain
12+	4.00	Agree
TOTAL	3.81	Uncertain X <sup>2</sup> =.479
Years in farming		Δ4/2
<5	4.50	Agree
5-17	3.72	Uncertain
18-30	3.82	Uncertain
31-43	4.33	Agree
44+	5.00	Strongly Agree
TOTAL	4.27	Agree
		X <sup>2</sup> =.519

<u>There is a high demand of organic products in the market</u>. Table 27 presents the opinion of respondents whether there is a high demand of organic products in the market At an average most of the respondents are uncertain. Chi-square coefficient indicates that there are no significant differences in opinion across demographic profile.

PARTICULAR	ATTITUDE RATING (AVERAGE)	DESCRIPTION
Education		
Elementary	3.05	Uncertain
High school	2.93	Disagree
College	3.21	Uncertain
TOTAL	3.06	Uncertain
		X <sup>2</sup> =.748
Farm size		
<1ha	3.46	Uncertain
0.5-1ha	2.84	Disagree
>1ha	3.33	Uncertain
TOTAL	3.21	Uncertain
		X <sup>2</sup> =.477
Age		
<25	2.83	Disagree
25-37	3.00	Uncertain
38-50	3.00	Uncertain
52-64	3.33	Uncertain
65+	4.00	Agree
TOTAL	-3.23	Uncertain
		X <sup>2</sup> =.848
Household size		
<3	3.33	Uncertain
3-5	3.05	Uncertain
6-8	2.78	Disagree
9-11	4.50	Agree
12+	3.33	Uncertain
TOTAL	3.42	Uncertain
		X <sup>2</sup> =.444
Years in farming		
<5	2.75	Disagree
5-17	2.88	Disagree
18-30	3.29	Uncertain
31-43	3.33	Uncertain
44+	4.00	Agree
TOTAL	3.25	Uncertain
		X <sup>2</sup> =.774

Table 27. Attitude of respondents to there is a high demand of organic products in the markets

#### Extent of Knowledge on Organic Farming

These are statements on how respondents view organic farming .Technical aspects, socio-economic aspect. environment health aspect and or accreditation/certification/support aspect in relation to their demographic and farm profile. A technical aspect includes information about compost or organic fertilizers, green manuring, crop rotation, bio-pest control, indigenous knowledge, and use of traditional varieties. Kitma (2009) says that in organic farming feed the soil and not the plant directly. Plants are not designed to get their nutrients by not being forced fed. Plants, in order to grow healthy, need fertile soil. Soil fertility can be maintained by the application of quality compost, proper application of animal and green manure, proper crop rotation as well as cultivation process. He added also that there is no such thing as pest if we encourage a well-balanced micro-ecology, spraying pesticide to control plant pest does not solve the problem of pest. For him, key to pest management is through building a well balanced micro-ecology that include soil, plants, animals and microorganisms, healthy soils grows healthy plants and healthy plants do not get infested easily by pests and diseases.

#### Use of Traditional Varieties

<u>Traditional varieties are drought tolerant</u>. Table 28 presents the respondents knowledge if traditional varieties are drought tolerant. Almost all of the respondents have no knowledge if traditional varieties are drought tolerant. Chi-square coefficient indicates that there are no significant differences in replies of respondents across demographic profile.

PARTICULAR	KNOWLEDGE RATING (AVERAGE)	DESCRIPTION
Education	(AVERAGE)	
Elementary	1.62	No knowledge
High school	1.60	No knowledge
College	1.64	No knowledge
TOTAL	1.62	No knowledge
IUIAL	1.02	$X^2=.709$
Age		
<25	1.33	No knowledge
25-37	1.63	No knowledge
38-50	1.67	No knowledge
52-64	1.78	No knowledge
65+	1.00	No knowledge
TOTAL	1.48	No knowledge
		X <sup>2</sup> =.990
Household size	Cart Bar at the	
<3	1.33	No knowledge
3-5	1.58	No knowledge
6-8	1.52	No knowledge
9-11	4.50	Knowledgeable
12+	1.00	No knowledge
TOTAL	1.99	No knowledge
		X <sup>2</sup> =.005
Years in farming		
<5	1.50	No knowledge
5-17	1.40	No knowledge
18-30	2.06	Low knowledge
31-43	1.33	No knowledge
44+	1.00	No knowledge
TOTAL	1.46	No knowledge
		X <sup>2</sup> =.886

Table 28. Knowledge of respondents to traditional varieties are drought tolerant

<u>Traditional varieties are more resistant to the attack of pest and diseases</u>. Table 29 presents the knowledge of respondents whether traditional varieties are more resistant to the attack of pest and diseases .At an average most of the respondents have no knowledge as to traditional varieties are more resistant to the attack of pest and diseases. The chi-

square coefficient indicates that there are no significant difference in replies across demographic profile.

PARTICULAR	KNOWLEDGE RATING	DESCRIPTION
	(AVERAGE)	
Education		
Elementary	1.81	No knowledge
Highshool	1.53	No knowledge
College	1.71	No knowledge
TOTAL	1.68	No knowledge
		X <sup>2</sup> =.347
Age		
<25	1.17	No knowledge
25-37	1.63	No knowledge
38-50	1.80	No knowledge
52-64	2.11	Low knowledge
65+	1.00	No knowledge
TOTAL	1.54	No knowledge
		X <sup>2</sup> =.992
Household size		
<3	1.33	No knowledge
3-5	1.47	No knowledge
6-8	1.78	No knowledge
9-11	4.50	Knowledgeable
12+	1.00	No knowledge
TOTAL	2.02	Low knowledge
	1016.	X <sup>2</sup> =.007
Years in farming		
<5	1.25	No knowledge
5-17	1.48	No knowledge
18-30	2.24	Low knowledge
31-43	1.33	No knowledge
44+	1.00	No knowledge
TOTAL	1.46	No knowledge
		X <sup>2</sup> =.863

Table 29. Knowledge of respondents to traditional varieties are more resistant to the attack of pest and diseases

Lower yield is obtained when using traditional varieties or land races. Table 30 presents the knowledge of respondents if lower yield is obtained when using traditional varieties or land races. Most of the respondents has a low knowledge if lower yield is obtained when using traditional varieties or land races. Chi-square coefficient indicates that there are no significant differences in replies across demographic profile.

PARTICULAR	KNOWLEDGE RATING (AVERAGE)	DESCRIPTION
Education		
Elementary	2.67	Low knowledge
High school	3.27	Moderately knowledgeable
College	2.64	Low knowledge
TOTAL	2.86	Low knowledge
		X <sup>2</sup> =.725
Age		
<25	2.83	Low knowledge
25-37	2.89	Low knowledge
38-50	2.87	Low knowledge
52-64	2.89	Low knowledge
65+	1.00	No knowledge
TOTAL	2.50	Low knowledge
	745/24	X <sup>2</sup> =.948
Household size		
<3	2.67	Low knowledge
3-5	2.78	Low knowledge
6-8	2.74	Low knowledge
9-11	4.50	Knowledgeable
12+	3.00	Moderately knowledgeable
TOTAL	3.14	Moderately knowledgeable
		X <sup>2</sup> =.631
Years in farming		
<5	2.00	Low knowledge
5-17	2.72	Low knowledge
18-30	3.18	Moderately knowledgeable
31-43	3.67	Moderately knowledgeable
44+	1.00	No knowledge
TOTAL	2.51	Low knowledge
		X <sup>2</sup> =.348

Table 30. Knowledge of respondents to lower yield is obtained when using traditional varieties or land races

<u>Traditional varieties require lower input</u>. Table 31 presents the knowledge of respondents if traditional varieties require lower input. Almost all of the respondents have no knowledge as to lower yield is obtained in organic farming. A chi-square coefficient indicates that there are no significant differences in replies across demographic profile.

PARTICULAR	KNOWLEDGE RATING (AVERAGE)	DESCRIPTION
Education		
Elementary	1.62	No knowledge
High school	1.47	No knowledge
College	1.71	No knowledge
TOTAL	1.50	No knowledge
		X <sup>2</sup> =.844
Age	El a	
<25	1.50	No knowledge
25-37	1.63	No knowledge
38-50	1.53	No knowledge
52-64	1.78	No knowledge
65+	1.00	No knowledge
TOTAL	1.49	No knowledge
		X <sup>2</sup> =.705
Household size	Eres and a second	
<3	1.33	No knowledge
3-5	1.68	No knowledge
6-8	1.39	No knowledge
9-11	4.50	Knowledgeable
12+	1.00	No knowledge
TOTAL	1.98	No knowledge
		X <sup>2</sup> =.001
Years in farming		
<3	1.50	No knowledge
3-5	1.40	No knowledge
6-8	2.00	Low knowledge
9-11	1.33	No knowledge
12+	1.00	No knowledge
TOTAL	1.45	No knowledge
		X <sup>2</sup> =.608

Table 31. Knowledge of respondents to traditional varieties require lower input

<u>Knowledge of respondents in traditional varieties is more nutritious</u>. Table 32 presents the knowledge of respondents in traditional varieties are more nutritious. Majority of the respondents have no knowledge whether traditional varieties are more nutritious. Chi-square coefficient indicates that there are no significant differences in replies across demographic profile.

PARTICULAR	KNOWLEDGE RATING (AVERAGE)	DESCRIPTION
Education		
Elementary	1.48	No knowledge
High school	1.80	No knowledgeable
College	1.79	No knowledge
TOTAL	1.69	No knowledge
	51.	X <sup>2</sup> =.648
Age		
<25	1.50	No knowledge
25-37	1.79	No knowledge
38-50	1.24	No knowledge
52-64	2.22	Low knowledge
65+	1.00	No knowledge
TOTAL	1.56	No knowledge
	1°24 - 1000	X <sup>2</sup> =.148
Household size		5
<3	2.67	Low knowledge
3-5	1.63	No knowledge
6-8	1.39	No knowledge
9-11	4.50	Knowledgeable
12+	3.00	Moderately knowledgeable
TOTAL	2.64	Low knowledge
		X <sup>2</sup> =.017
Years in farming		
<5	1.75	No knowledge
5-17	1.44	No knowledge
18-30	1.82	No knowledge
31-43	2.67	Low knowledge
44+	1.00	No knowledge
TOTAL	1.74	No knowledge
		X <sup>2</sup> =.554

Table 32. Knowledge of respondents to traditional varieties is more nutritious

#### Socio-economic Aspect

<u>Organic farming is expensive especially during conversion period</u>. Table 33 presents the knowledge of respondents whether organic farming is expensive especially during conversion period. At an average most of the respondents has a low knowledge as to conversion to organic farming is expensive. The chi-square coefficient indicates that there are no significant differences in replies across demographic profile.

 Table 33. Knowledge of respondents to organic farming is expensive especially during conversion period

PARTICULAR	KNOWLEDGE RATING (AVERAGE)	DESCRIPTION
Education	ATT I AND AND	
Elementary	1.86	No knowledge
High school	2.00	Low knowledge
College	2.50	Low knowledge
TOTAL	2.12	Low knowledge X <sup>2</sup> =.867
Age		
<25	2.50	Low knowledge
25-37	2.53	Low knowledge
38-50	1.47	No knowledge
32-64	1.67	No knowledge
65+	4.00	Knowledgeable
TOTAL	2.43	Low knowledge
Household size	1910	
<3	2.33	Low knowledge
3-5	2.00	Low knowledge
6-8	2.04	Low knowledge
9-11	4.00	Knowledgeable
12+	1.33	No knowledge
TOTAL	2.34	Low knowledge X <sup>2</sup> =.372

Table 33 continued...

PARTICULAR	KNOWLEDGE RATING	DESCRIPTION
	(AVERAGE)	
Years in farming		
<5	1.75	No knowledge
5-17	2.28	Low knowledge
18-30	1.88	No knowledge
31-43	1.33	No knowledge
44+	4.00	Knowledgeable
TOTAL	2.25	Low knowledge
		X <sup>2</sup> =.763
Farm size		
<1ha	2.00	Low knowledge
0.5	2.19	Low knowledge
>1ha	1.33	No knowledge
TOTAL	1.84	No knowledge
		X <sup>2</sup> =.766

Preparation of organic input is laborious and time consuming. Table 34 presents the knowledge of respondents if preparation of organic input is laborious and time consuming .Most of the respondents are low knowledgeable as to preparation of organic input is laborious and time consuming. Chi-square coefficient indicates that there are no significant differences in replies across demographic profile.

PARTICULAR	KNOWLEDGE RATING (AVERAGE)	DESCRIPTION
Education	(11/21/102)	-
Elementary	2.43	Low knowledge
High school	2.47	Low knowledge
College	3.14	Moderately knowledgeable
TOTAL	2.68	Low knowledge $X^2$ = .454
Age		
<25	2.83	Low knowledge
25-37	3.00	Moderately knowledgeable
38-50	2.13	Low knowledge
32-64	2.44	Low knowledge
65+	4.00	Knowledgeable
TOTAL	2.88	Low knowledge $X^2 = .192$
Household size	AD STOR	
<3	3.67	Moderately knowledgeable
3-5	2.47	Low knowledge
6-8	2.70	Low knowledge
9-11	4.00	Knowledgeable
12+	1.33	No knowledge
TOTAL	2.83	Low knowledge X <sup>2</sup> =.380
Years in farming	EN STORE	
<5	2.25	Low knowledge
5-17	2.80	Low knowledge
18-30	2.29	Low knowledge
31-43	3.33	Moderately knowledgeable
44+	4.00	Knowledgeable
TOTAL	2.93	Low knowledge X <sup>2</sup> = .292
Farm size		
<1ha	2.00	Low knowledge
0.5	3.00	Moderately knowledgeable
>1ha	2.00	Low knowledge
TOTAL	2.33	Low knowledge $X^2$ = .341
		Λ

Table 34. Knowledge of respondents to preparation of organic input is laborious and time consuming

Lower yield are obtained with organic farming during conversion period. Table 35 presents the knowledge of respondents whether lower yield is obtained with organic farming during conversion period. Most of the respondents have no knowledge as to lower yield are obtained with organic farming during conversion period. Chi-square coefficient indicates that there are no significant differences in replies across demographic profile.

Table 35. Knowledge of respondents to lower yield is obtained with organic farming during conversion period

PARTICULAR	KNOWLEDGE RATING (AVERAGE)	DESCRIPTION
Education		
Elementary	2.19	Low knowledge
High school	2.20	Low knowledge
College	2.86	Low knowledge
TOTAL	2.42	Low knowledge X <sup>2</sup> =.726
Age		
<25	2.83	Low knowledge
25-37	2.84	Low knowledge
38-50	1.73	No knowledge
32-64	2.00	Low knowledge
65+	4.00	Knowledgeable
TOTAL	2.68	Low knowledge
	No. AND NO.	X <sup>2</sup> = .192
Household size		
<3	2.00	Low knowledge
3-5	2.47	Low knowledge
6-8	2.30	Low knowledge
9-11	4.50	Knowledgeable
12+	1.33	No knowledge
TOTAL	2.52	Low knowledge
		$X^2 = .165$
Years in farming		
<5	2.25	Low knowledge
5-17	2.68	Low knowledge
18-30	2.00	Low knowledge
31-43	1.67	No knowledge
44+	4.00	Knowledgeable
TOTAL	2.52	Low knowledge
		X <sup>2</sup> = .231
Farm size		
<1ha	2.00	Low knowledge
0.5	2.63	Low knowledge
>1ha	1.67	No knowledge
TOTAL	2.10	Low knowledge
		X <sup>2</sup> =.530

Land use or farm resources are maximized with organic farming. Table 36 presents the knowledge of respondents if land use or farm resource is maximized with organic farming .At an average most of the respondents have no knowledge as to land use or farm resource are maximized with organic farming. However chi-square coefficient of .000 household sizes indicates a significant difference in replies. Whereas those with less than 3 members are low knowledgeable on the land use or farm resource is maximized with organic farming, those with 9-11 member are knowledgeable of it.

PARTICULAR	KNOWLEDGE RATING (AVERAGE)	DESCRIPTION
Education	40	
Elementary	1.488	No knowledge
High school	1.80	No knowledge
College	1.50	No knowledge
TOTAL	1.59	No knowledge
		X <sup>2</sup> =.344
Household size		
<3	2.30	Low knowledge
3-5	1.53	No knowledge
6-8	1.35	No knowledge
9-11	4.50	Knowledgeable
12+	-1.00	No knowledge
TOTAL	2.14	Low knowledge
		X <sup>2</sup> =.000
Years in farming	1046	
<5	1.50	No knowledge
5-17	1.48	No knowledge
18-30	1.65	No knowledge
31-43	2.33	Low knowledge
44+	1.00	No Knowledge
TOTAL	1.59	No knowledge
		X <sup>2</sup> =.836
Farm size		
<1ha	1.53	No knowledge
0.5	1.66	No knowledge
>1ha	1.00	No knowledge
TOTAL	1.40	No knowledge
		$X^2 = .530$

Table 36. Knowledge of respondents to land use or farm resources is maximized with organic farming

<u>Optimum production level is obtained with organic farming</u>. Table 37 presents the knowledge of respondents on whether optimum production level is obtained with organic farming. All the respondents have no knowledge as to optimum production level is obtained with organic farming .Except for household size, chi-square coefficients are greater than 0.05 indicating that there are no significant difference in replies across demographic profile.

Table 37. Knowledge of respondents to optimum production level is obtained with organic farming

PARTICULAR	KNOWLEDGE RATING (AVERAGE)	DESCRIPTION
Elementary	1.43	No knowledge
High school	1.33	No knowledge
College	1.55	No knowledge
TOTAL	1.42	No knowledge $X^2=.344$
Age		
<25	1.33	No knowledge
25-37	1.84	No knowledge
38-50	1.07	No knowledge
32-64	1.67	No knowledge
65+	1.00	No knowledge
TOTAL	1.38	No Knowledge X <sup>2</sup> =.138
Household size		
<3	1.00	No knowledge
3-5	1.68	No knowledge
6-8		No knowledge
9-11	4.50	Knowledgeable
12+	1.00	No knowledge
TOTAL	1.88	No knowledge
		X <sup>2</sup> =.002
Years in farming		
<5	1.50	No knowledge
5-17	1.48	No knowledge
18-30	1.65	No knowledge
31-43	1.00	No knowledge
44+	1.00	No Knowledge
TOTAL 1.27	No knowledge X <sup>2</sup> =.944	
Farm size		
<1ha	1.47	No knowledge
0.5	1.56	No knowledge
>1ha	1.00	No knowledge
TOTAL	1.34	No knowledge X <sup>2</sup> =.739

Knowledge in organically produced product is hard to sell. Table 38 presents the knowledge of respondents whether organically produced product is hard to sell. At an average most of the respondents have low knowledge as to organic products are hard to sell. A chi-square coefficient indicates that there are no significant differences in replies across demographic profile.

PARTICULAR	KNOWLEDGE RATING (AVERAGE)	DESCRIPTION
Education		
Elementary	2.38	Low knowledge
High school	1.60	No knowledge
College	2.57	Low knowledge
TOTAL	2.18	Low knowledge X <sup>2</sup> =.179
Age		
<25	2.00	Low knowledge
25-37	2.42	Low knowledge
38-50	1.8	No knowledge
32-64	2.33	Low knowledge
65+	4.00	Knowledgeable
TOTAL	2.51	Low knowledge X <sup>2</sup> =.597
Household size		5/
<3	2.00	Low knowledge
3-5	2.42	Low knowledge
6-8	1.96	No knowledge
9-11	4.00	Knowledgeable
12+	1.67	No knowledge
TOTAL	2.41	Low knowledge X <sup>2</sup> =.752

Table 38. Knowledge of respondents to organically produced product is hard to sell

<u>Organically produced products demands higher price</u>. Table 39 presents the knowledge of respondents on whether organically produced products demands higher price. Most of the respondents are moderately knowledgeable as to organic products demands higher price. A chi-square coefficient indicates that there are no significant differences in replies across demographic profile.

PARTICULAR	KNOWLEDGE RATING (AVERAGE)	DESCRIPTION
Age		
<25	3.33	Moderately knowledgeable
25-37	4.26	Knowledgeable
38-50	3.20	Moderately knowledgeable
32-64	3.22	Moderately knowledgeable
65+	4.00	Knowledgeable
TOTAL	3.60	Moderately knowledgeable X <sup>2</sup> =.314
Household size		
<3	2.00	Low knowledge
3-5	3.89	Moderately knowledgeable
6-8	3.57	Moderately knowledgeable
9-11	5.00	Very Knowledgeable
12+	3.33	Moderately knowledgeable
TOTAL	3.56	Moderately knowledgeable X <sup>2</sup> =.009
Years in farming	1046.	
<5	3.25	Moderately knowledgeable
5-17	3.84	Moderately knowledgeable
18-30	3.53	Moderately knowledgeable
31-43	3.00	Moderately knowledgeable
44+	4.00	Knowledgeable
TOTAL	3.52	Moderately knowledgeable X <sup>2</sup> =.330
Farm size		
<1ha	3.40	Moderately knowledgeable
0.5	3.78	Moderately knowledgeable
>1ha	3.33	Moderately knowledgeable
TOTAL	3.50	Moderately knowledgeable X <sup>2</sup> =.562

Table 39. Knowledge of respondents to organically produced products demands higher price

### Environment or Health Aspect

As stated by (Clarapols, 2008) organic can help mitigate global warming .Some reasons on how organic agriculture can help battle change are organic farming does not pollute air, water and land because it does not utilize chemical fertilizer and pesticides.

Opina (2008) stated also that health experts promote the consumption of organic vegetables for its high nutritional content and for having the ability to boost the immune system by fighting certain diseases.

Organic farming promotes cleaner or safer environment by maximizing air, soil, water pollution. Table 40 presents the knowledge of farmers if organic farming promotes cleaner or safer environment by maximizing air, soil, and water pollution. Almost all respondents are knowledgeable as to organic farming promotes clean and safe environment. Chi-square coefficient indicates that there are no significant difference in replies across demographic profile.

PARTICULAR	KNOWLEDGE RATING (AVERAGE)	DESCRIPTION		
Education				
Elementary	4.76	Knowledgeable		
High school	4.80	Knowledgeable		
College	4.57	Knowledgeable		
TOTAL	4.71	Knowledgeable		
		X <sup>2</sup> =.630		
Age				
<25	4.33	Knowledgeable		
25-37	5.00	Very knowledgeable		
38-50	4.60	Knowledgeable		
52-64	4.56	Knowledgeable		
65+	5.00	Very knowledgeable		
TOTAL	4.70	Knowledgeable		
E I	CIT BY AN	X <sup>2</sup> =.044		
Household size				
<3	4.67	Knowledgeable		
3-5	4.74	Knowledgeable		
6-8	4.74	Knowledgeable		
9-11	4.56	Knowledgeable		
12+	4.33	Knowledgeable		
TOTAL	4.70	Knowledgeable		
	AND AND	X <sup>2</sup> =.691		
Years in farming				
<5	4.25	Knowledgeable		
5-17	4.88	Knowledgeable		
18-30	4.59	Knowledgeable		
31-43	4.67	Knowledgeable		
44+	5.00	Very Knowledgeable		
TOTAL	4.68	Knowledgeable		
		X <sup>2</sup> =.189		
Farm size				
<1ha	4.53	Knowledgeable		
0.5-1ha	4.84	Knowledgeable		
>1ha	4.33	Knowledgeable		
TOTAL	4.57	Knowledgeable		
		X <sup>2</sup> =.130		

Table 40. Knowledge of respondents to organic farming promotes cleaner or safer environment by maximizing land, air, and water pollution

<u>Organic farming produces safer food products</u>. Table 41 presents that all respondents are knowledgeable as to organic farming produces, safer food products. Chi-square coefficients indicates that there are no significant differences in replies across demographic profile.

PARTICULAR	KNOWLEDGE RATING (AVERAGE)	DESCRIPTION	
Education			
Elementary	4.71	Knowledgeable	
High school	4.80	Knowledgeable	
College	4.86	Knowledgeable	
TOTAL	4.79	Knowledgeable	
		X <sup>2</sup> =.803	
Age	CF BLE TH		
<25	4.50	Knowledgeable	
25-37	4.95	Knowledgeable	
38-50	4.80	Knowledgeable	
52-64	4.56	Knowledgeable	
65+	5.00	Very knowledgeable	
TOTAL	4.76	Knowledgeable	
		X <sup>2</sup> =.179	
Household size			
<3	4.67	Knowledgeable	
3-5	4.84	Knowledgeable	
6-8	4.78	Knowledgeable	
9-11	5.00	Very knowledgeable	
12+	4.33	Knowledgeable	
TOTAL	4.72	Knowledgeable	
	· • • • • • •	X <sup>2</sup> =.506	
Years in farming			
<5	4.50	Knowledgeable	
5-17	4.84	Knowledgeable	
18-30	4.76	Knowledgeable	
31-43	4.67	Knowledgeable	
44+	5.00	Very Knowledgeable	
TOTAL	4.75	Knowledgeable	
		X <sup>2</sup> =.612	
Farm size			
<1ha	4.73	Knowledgeable	
0.5-1ha	4.84	Knowledgeable	
>1ha	4.33	Knowledgeable	
TOTAL	4.63	Knowledgeable	
		X <sup>2</sup> =.114	

Table 41. Knowledge of respondents to organic farming produces safer food products

Soil fertility is enhanced. Table 42 presents the knowledge of farmers on whether soil fertility is enhanced in organic farming. Majority of the respondents are knowledgeable as to organic farming enhanced soil fertility. A chi-square coefficient of .004 for the household size indicates a significant difference in replies. Whereas those with more than 12 members are moderately knowledgeable on the soil fertility is enhanced in organic farming, those with 9-11 member are very knowledgeable.

PARTICULAR	KNOWLEDGE RATING (AVERAGE)	DESCRIPTION	
Age			
<25	4.00	Knowledgeable	
25-37	4.95	Knowledgeable	
38-50	4.80	Knowledgeable	
52-64	4.56	Knowledgeable	
65+	5.00	Very knowledgeable	
TOTAL	4.66	Knowledgeable	
		$X^2 = .051$	
Household size			
<3	4.67	Knowledgeable	
3-5	4.84	Knowledgeable	
6-8	4.74	Knowledgeable	
9-11	5.00	Very knowledgeable	
12+	-3.67	Knowledgeable	
TOTAL	4.58	Moderately knowledgeable	
		$X^2 = .004$	
Years in farming			
<5	3.75	Moderately Knowledgeable	
5-17	4.84	Knowledgeable	
18-30	4.76	Knowledgeable	
31-43	4.67	Knowledgeable	
44+	5.00	Very Knowledgeable	
TOTAL	4.54	Knowledgeable	
		X <sup>2</sup> =.016	
Farm size			
<1ha	4.73	Knowledgeable	
0.5-1ha	4.75	Knowledgeable	
>1ha	4.33	Knowledgeable	
TOTAL	4.60	Knowledgeable	
		X <sup>2</sup> =.189	

Table 42. Knowledge of respondents to soil fertility is enhanced in organic farming

<u>Organic farming helps balance the ecosystem</u>. Table 43 presents the knowledge of farmers on whether organic farming helps balance the ecosystem. At an average most of the respondents are knowledgeable as to organic farming helps balance ecosystem. A chi-square coefficient of .001 for the farm size indicates a significant difference in replies. Whereas those with farm size with more than 1ha.are moderately knowledgeable.

PARTICULAR	KNOWLEDGE RATING (AVERAGE)	DESCRIPTION	
Education			
Elementary	4.05	Knowledgeable	
High school	4.13	Knowledgeable	
College	4.50	Knowledgeable	
TOTAL	4.23	Knowledgeable	
		$X^2 = .065$	
Age	ST. I		
<25	3.67	Moderately knowledgeable	
25-37	4.58	Knowledgeable	
38-50	4.33	Knowledgeable	
52-64	3.44	Moderately knowledgeable	
65+	5.00	Very knowledgeable	
TOTAL	4.20	Knowledgeable	
		X <sup>2</sup> =.054	
Household size	Eig.		
<3	3.67	Moderately Knowledgeable	
3-5	4.11	Knowledgeable	
6-8	4.35	Knowledgeable	
9-11	5.00	Very knowledgeable	
12+	3.67	Moderately Knowledgeable	
TOTAL	4.16	Knowledgeable	
		X <sup>2</sup> =.158	
Years in farming			
<5	3.50	Moderately Knowledgeable	
5-17	4.36	Knowledgeable	
18-30	4.12	Knowledgeable	
31-43	4.00	Knowledgeable	
44+	5.00	Very Knowledgeable	
TOTAL	4.20	Knowledgeable	
		X <sup>2</sup> =.163	
Farm size			
<1ha	4.07	Knowledgeable	
0.5-1ha	4.38	Knowledgeable	
>1ha	3.00	Moderately Knowledgeable	
TOTAL	3.82	Moderately Knowledgeable	
		X <sup>2</sup> =.001	

Table 43. Knowledge of respondents to organic farming helps balance the ecosystem

<u>Organic farming promotes sustainable agriculture</u>. Table 44 presents the knowledge of farmers if organic farming promotes sustainable agriculture. Majority of the respondents are moderately knowledgeable as to organic farming promotes sustainable agriculture. The chi-square coefficient indicates that there are no significant differences in replies across demographic profile.

PARTICULAR KNOWLEDGE RATING (AVERAGE)		DESCRIPTION
Education		
Elementary	3.81	Moderately Knowledgeable
High school	3.60	Moderately Knowledgeable
College	4.00	Moderately Knowledgeable
TOTAL	3.80	Moderately Knowledgeable X <sup>2</sup> =.845
Household size		
<3	3.33	Moderately Knowledgeable
3-5	4.11	Knowledgeable
6-8	3.57	Moderately Knowledgeable
9-11	5.00	Very knowledgeable
12+	3.33	Moderately Knowledgeable
TOTAL	3.87	Moderately Knowledgeable X <sup>2</sup> =.306
Years in farming		3
<5	3.25	Moderately Knowledgeable
5-17	3.84	Moderately Knowledgeable
18-30	3.82	Moderately Knowledgeable
31-43	3.67	Moderately Knowledgeable
44+	5.00	Very Knowledgeable
TOTAL	3.92	Moderately Knowledgeable X <sup>2</sup> =.537
Farm size		
<1ha	4.20	Knowledgeable
0.5-1ha	3.63	Moderately Knowledgeable
>1ha	3.67	Moderately Knowledgeable
TOTAL	3.83	Moderately Knowledgeable X <sup>2</sup> =.504

Table 44. Knowledge of respondents to organic farming promotes sustainable Agriculture

<u>Organic farming promotes good human and animal health</u>. Table 45 presents the knowledge of farmers if organic farming promotes good human and animal health. Majority of the respondents are knowledgeable. A chi-square coefficient indicates that there are no significant difference in replies across demographic profile.

PARTICULAR	KNOWLEDGE RATING (AVERAGE)	DESCRIPTION	
Age			
<25	4.33	Knowledgeable	
25-37	4.95	Knowledgeable	
38-50	4.80	Knowledgeable	
52-64	4.56	Knowledgeable	
65+	5.00	Very knowledgeable	
TOTAL	4.73	Knowledgeable	
		$X^2 = .054$	
Years in farming			
<5	4.25	Knowledgeable	
5-17	4.84	Knowledgeable	
18-30	4.76	Knowledgeable	
31-43	4.69	Knowledgeable	
44+	5.00	Very Knowledgeable	
TOTAL	4.71	Knowledgeable	
		X <sup>2</sup> =.185	
Farm size		7/	
<1ha	4.73	Knowledgeable	
0.5-1ha	4.81	Knowledgeable	
>1ha	4.33	Knowledgeable	
TOTAL	4.62	Knowledgeable	
		X <sup>2</sup> =.148	

Table 45. Knowledge of respondents to organic farming promotes good human and as well as animal health

## Accreditation Certification/Support Aspect

Acquiring certification for organic products requires compliance to specific guidelines set certifying body. Table 46 presents that respondents are moderately knowledgeable as to acquiring certification for organic products require compliance to specific guidelines set certifying body. However, a chi-square coefficient of .003 for the farm size indicates a significant difference in replies. Where those with less than a hectare are low knowledgeable of it.

Table 46. Knowledge of respondents to acquiring certification for organic products
requires compliance to specific guidelines set certifying body

PARTICULAR	PARTICULAR KNOWLEDGE RATING (AVERAGE)	
Education	AP I I I I I	
Elementary	3.14	Moderately Knowledgeable
High school	3.27	Moderately Knowledgeable
College	3.25	Moderately Knowledgeable
TOTAL	3.22	Moderately Knowledgeable X <sup>2</sup> =.897
Age		
<25	3.33	Moderately knowledgeable
25-37	3.42	Moderately knowledgeable
38-50	2.67	Low knowledge
52-64	3.44	Moderately knowledgeable
65+	5.00	Very knowledgeable
TOTAL	3.57	Moderately knowledgeable X <sup>2</sup> =.282
Household size		
<3	2.67	Low knowledge
3-5	3.21	Moderately Knowledgeable
6-8	3.30	Moderately knowledgeable
9-11	3.00	Moderately knowledgeable
12+	3.33	Moderately knowledgeable
TOTAL	3.10	Moderately knowledgeable X <sup>2</sup> =.353
Years in farming		
<5	2.50	Low knowledge
15-17	3.36	Moderately knowledgeable
18-30	2.94	Low knowledge
31-43	4.00	Knowledgeable
44+	5.00	Very knowledgeable
TOTAL	2.97	Low knowledge X <sup>2</sup> =.149
Farm size		
<1ha	2.93	Low knowledge
0.5-1ha	3.38	Moderately knowledgeable
>1ha	3.00	Moderately knowledgeable
TOTAL	3.10	Moderately knowledgeable X <sup>2</sup> =.003

<u>Certification is important to promote organic to assure the consumers on the</u> <u>quality production and processing</u>. Table 47 shows that most of the respondents are moderately knowledgeable as to certification are important to promote organic to assure the consumers quality production and processing. Chi-square coefficient indicates that there are no significant differences in replies across demographic profile.

PARTICULAR	KNOWLEDGE RATING (AVERAGE)	DESCRIPTION	
Education			
Elementary	4.05	Knowledgeable	
High school	3.60	Moderately Knowledgeable	
College	3.79	Moderately Knowledgeable	
TOTAL	3.81	Moderately Knowledgeable X <sup>2</sup> =.411	
Age	151	0	
<25	3.67	Moderately knowledgeable	
25-37	4.05	Knowledgeable	
38-50	3.47	Moderately knowledgeable	
52-64	4.00	Knowledgeable	
65+	5.00	Very knowledgeable	
TOTAL	4.04	Knowledgeable X <sup>2</sup> =.475	
Household size	Test S	10	
<3	3.00	Moderately Knowledgeable	
3-5	4.05	Knowledgeable	
6-8	3.74	Moderately knowledgeable	
9-11	5.00	Very knowledgeable	
12+	3.33	Moderately knowledgeable	
TOTAL	3.10	Moderately knowledgeable X <sup>2</sup> =.171	
Years in farming			
<5	3.25	Moderately knowledgeable	
15-17	3.68	Moderately knowledgeable	
18-30	4.06	Knowledgeable	
31-43	4.33	Knowledgeable	
44+	5.00	Very knowledgeable	
TOTAL	4.70	Knowledgeable X <sup>2</sup> =.426	
Farm size			
<1ha	3.47	Moderately knowledgeable	
0.5-1ha	4.00	Knowledgeable	
>1ha	4.00	Knowledgeable	
TOTAL	3.82	Moderately knowledgeable X <sup>2</sup> =.961	

 Table 47. Knowledge of respondents to certification is important to promote organic to assures the consumers quality production and processing

Accrediting group for organic products is accessible in my place. Table 48 presents that a respondent has no knowledge as to accrediting group for organic product is accessible in the locality. A chi-square coefficient indicates that there are no significant differences in replies across demographic profile.

PARTICULAR	KNOWLEDGE RATING (AVERAGE)	DESCRIPTION	
Education			
Elementary	1.10	No knowledge	
High school	1.73	No knowledge	
College	1.29	No knowledge	
TOTAL	1.37	No knowledge	
		X <sup>2</sup> =.075	
Age			
<25	2.17	Low knowledge	
25-37	1.32	No knowledge	
38-50	1.00	No knowledge	
52-64	1.44	No knowledge	
65+	1.00	No knowledge	
TOTAL	1.39	No knowledge	
	10	X <sup>2</sup> =.069	
Household size			
<3	1.00	No knowledge	
3-5	-1.32	No knowledge	
6-8	1.17	No knowledge	
9-11	2.00	Low knowledge	
12+	2.67	Low knowledge	
TOTAL	1.63	No knowledge	
		X <sup>2</sup> =.239	
Years in farming			
<5	2.75	Low knowledge	
15-17	1.2	No knowledge	
18-30	1.29	No knowledge	
31-43	1.00	No knowledge	
44+	1.00	No knowledge	
TOTAL	1.45	No knowledge	
Farm size			
<1ha	1.33	No knowledge	
0.5-1ha	1.38	No knowledge	
>1ha	1.00	No knowledge	
TOTAL	1.24	No knowledge	
		X <sup>2</sup> =.069	

Table 48. Knowledge of respondents to an accrediting group for organic products is accessible in my place

<u>Certified organic products can command higher price</u>. Table 49 presents those respondents are moderately knowledgeable as to certified organic products command higher price. The chi-square coefficient indicates that there are no significant differences in replies across demographic profile.

PARTICULAR	KNOWLEDGE RATING (AVERAGE)	DESCRIPTION
Education		
Elementary	3.71	Moderately knowledgeable
High school	3.60	Moderately knowledgeable
College	3.86	Moderately knowledgeable
TOTAL	3.72	Moderately Knowledgeable
		X <sup>2</sup> =.747
Age		OL.
<25	3.50	Moderately knowledgeable
25-37	4.11	Knowledgeable
38-50	3.27	Moderately knowledgeable
52-64	3.67	Moderately knowledgeable
65+	5.00	Very knowledgeable
TOTAL	3.91	Moderately knowledgeable
	Eye	X <sup>2</sup> =.259

Table 49. Knowledge of respondents to certified organic products can command higher price



### Willingness to Shift to Organic Farming

The willingness of Bakun farmers to shift organic farming is presented in table 50 this includes their educational attainment, farm size, age, household size and number of years in farming.

Educational attainment of respondents. Most 20 (40.0%) respondents are elementary. Sixteen (34.0%) of the respondents are willing to go organic farming, four (8.5%) respondents, not willing to shift. Fifteen (30.0%) respondent are high school. Twelve (12.0%) of the respondents are college graduate. With a chi-square coefficient of .650 indicates that there are no significant difference in replies between educational attainment across willingness to shift organic farming. Implies that respondents from elementary level are more interested to shift organic farming.

<u>Farm size of respondents</u>. Majority 30 (60.0%) respondents has a farm size of 0.5-1ha.Twenty-five(50.0%) respondents are willing to go organic farming ,five(10.0%) not willing. A chi-square coefficient of .776 indicates that there are no significant difference in replies between farm sizes across willingness to shift organic farming

<u>Age of respondents</u>. Most 18 (36.0%) respondents is in age bracket of 25-37.Fithteen (30.0%) of the respondents are willing to shift organic farming, three (6.0%) not willing. A chi-square coefficient of .267 indicates that there are no significant difference in replies between age across willingness to shift organic farming.

<u>Household size of respondents</u>. Most 22 (44.0%) respondents is within 6-8 member. Eighteen (36.0%) of the respondents wants to shift organic farming ,4 (8.0%) respondents not willing. There were only 2 (4.0%) respondent that is within 9-11 household size, willing to shift organic farming. A chi-square coefficient of .755

indicates that there are no significant differences in replies between household sizes of respondents across willingness to shift organic farming.

Years in farming of respondents. Most 24 (48.0%) respondents have been farming for 5-17 years. Twenty (40.0%) of the respondents want to shift organic farming .Four (8.0%) of the respondent are not willing. Respondent that have been farming more 44 years are not willing to shift organic farming. A chi-square coefficient of .179 indicates that there are no significant difference in replies between number of years in farming across willingness to shift organic farming.

PARTICULAR					ТО	TAL
	WILLING	TO SHIFT	NOT	WILLING TO SHIFT	F	%
	F	%	F	%		
Education	TA		//			
Elementary	16	32.0	4	8.0	20	40.0
High school	/ 12	24.0	3	6.0	15	30.0
College	4.11	22.0	1	2.0	12	24.0
TOTAL	39	78.0	8	17.0	47	94.0
						X <sup>2</sup> =.650
Farm size						
<1ha	12	24.0	3 5	6.00	15	30.0
0.5-1ha	25	50.0		10.0	30	60.0
>1ha	2	4.0	0	0.00	2	4.0
TOTAL	39	78.0	8	16.0	47	94.0
						X <sup>2</sup> =.776
Age						
<25	4	8.0	1	2.0	5	10.000
25-37	15	30.0	3	6.0	18	36.000
38-50	12	24.0	2	4.0	14	28.000
52-64	8	16.0	1	2.0	9	18.000
65+	0	00.0	1	2.0	1	2.000
TOTAL	39	78.0	8	16.0	47	94.0 0
						X <sup>2</sup> =.267
Household size						
<3	2	4.00	1	2.0	3	6.000
3-5	15	30.0	2	4.0	17	34.000
6-8	18	36.0	4	8.0	22	44.000
9-11	2	4.00	0	0.0	2	4.000
12+	2	4.00	1	2.0	3	6.000
TOTAL	39	78.0	8	16.0	47	94.000
						X <sup>2</sup> =.755
Years in Farming						
<5	2	4.0	1	2.0	3	6.000
5-17	20	40.0	4	8.0	24	48.000
18-30	14	28.0	2	4.0	16	32.000
31-43	3	6.0	0	0.0	3	6.000
44+	0	.0	1	2.0	1	2.000
TOTAL	39	78.0	8	16.0	47	94.000
						X <sup>2</sup> =.179

Table 50. Willingness to shift organic farming

### Organic Farming Support

Table 51 presents the organic farming support the vegetable farmers of Bakun prefer or need in order to adapt organic farming includes information on their age, household size, number of years in farming, educational attainment and farm sizes.

<u>Age of respondents</u>. Majority 28 (56.0%) respondents prefer or need the support of the government. Ten (20.0%) of the respondents is in age bracket of 25-37.Eleven (2.0%) of the respondents needs financial capital.

<u>Household size of respondents</u>. Majority 28 (56.0%) respondents needs government support. Twelve (24.0%) is within 6-8 household size, eight (16.0%) from household size of 3-5.Eleven (22.0%) of the respondents needs financial support.

<u>Number of years in farming</u>. Majority 28 (56.0%) respondents' needs government support. Eleven (22.0%) of the respondents have been farming for 5-17 years .Ten (20.0%) respondents engaged in farming for 18-30 years. Four (8.0%) of respondents has less than 5 years in farming and there were 3 (6.0%) have been farming for 31-43 years.

Educational attainment. Majority 28 (56.0%) respondents need the government support. Eleven (22.0%) of the respondents are in elementary level. Nine (18.0%) from high school and 8 (16.0%) of the respondents are college graduate. There were 11 (22.0%) respondents needs financial support.

<u>Farm size of respondents</u>. It presents that 28 (56.0%) of respondents needs government support .Fifth teen (30.0%) of the respondents has a farm size of 0.5-1ha, eleven (22.0%) of the respondents has a land area of lesser than 1ha, there were only two or 4.0% respondents owns more than 1ha land area.

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12+         3.0         6.0         0 </td <td>6-8</td> <td>12.0</td> <td>24.0</td> <td>2.0</td> <td>4</td> <td>2</td> <td>4</td> <td>1</td> <td>2.0</td> <td>1</td> <td>2.0</td> <td>1</td> <td>2.0</td> <td>0</td> <td>.0</td> <td>0</td> <td>.0</td> <td>1</td> <td>2.0</td> <td>0</td> <td>.0</td> <td>0</td> <td>.0</td> <td>20.0</td> <td>40.0</td>	6-8	12.0	24.0	2.0	4	2	4	1	2.0	1	2.0	1	2.0	0	.0	0	.0	1	2.0	0	.0	0	.0	20.0	40.0
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No. of years in farming <5         4.0         8.0         .0         0 <t< td=""><td>12+</td><td>3.0</td><td>6.0</td><td>.0</td><td>0</td><td>0</td><td>0</td><td>0</td><td>.0</td><td>0</td><td>.0</td><td>0</td><td>.0</td><td>0</td><td>.0</td><td>0</td><td>.0</td><td>0</td><td>.0</td><td>0</td><td>.0</td><td>0</td><td>.0</td><td>3.0</td><td>6.0</td></t<>	12+	3.0	6.0	.0	0	0	0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	3.0	6.0
<5	TOTAL	28.0	56.0	11.0	22	4	8	6	12.0	1	2.0	4	8.0	1	2.0	2	4.0	2	4.0	2	4.0	2	4.0	45.0	90.0
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$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	<5	4.0	8.0	.0	0	0	0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	4.0	8.0
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	5-17	11.0	22.0	7.0	14	2	4	2	4.0	0	.0	2	4.0	1	2.0	1	2.0		2.0	1	2.0	1	2.0	21.0	42.0
44+         .0         .0         1.0         2         0         0         .0         1.0         2.0         1.0         2.0         1         2.0         1         2.0         2         4.0         2         4.0         2         0         1         2.0         1         2.0         1         2.0         1         2.0         1         2.0         1         2.0         1         2.0         1         2.0         1         2.0         1         2.0         1         2.0         1         2.0         1         2.0         1         2.0         1         2.0         1         2.0         1         2.0         1         2.0         1 <td>18-30</td> <td>10.0</td> <td>20.0</td> <td>3.0</td> <td>6</td> <td>2</td> <td>4</td> <td>2</td> <td>4.0</td> <td>1</td> <td>2.0</td> <td>2</td> <td>4.0</td> <td>0</td> <td>.0</td> <td>1</td> <td>2.0</td> <td>1</td> <td>2.0</td> <td>1</td> <td>2.0</td> <td>1</td> <td>2.0</td> <td>16.0</td> <td>32.0</td>	18-30	10.0	20.0	3.0	6	2	4	2	4.0	1	2.0	2	4.0	0	.0	1	2.0	1	2.0	1	2.0	1	2.0	16.0	32.0
TOTAL         28.0         56.0         11.0         22         4         8         6         12.0         4         8.0         1         2.0         2         4.0         2         4.0         2         4.0         2         4.0         2         4.0         2         4.0         2         4.0         2         4.0         2         4.0         2         4.0         2         4.0         2         4.0         2         4.0         2         4.0         2         4.0         2         4.0         1         2.0	31-43	3.0	6.0	.0	0	0	0	2	4.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	3.0	6.0
Education         Education <t< td=""><td>44+</td><td>.0</td><td>.0</td><td>1.0</td><td>2</td><td>0</td><td>0</td><td>0</td><td>.0</td><td>0</td><td>.0</td><td>0</td><td>.0</td><td>0</td><td>.0</td><td>0</td><td>.0</td><td>0</td><td>.0</td><td>0</td><td>.0</td><td>0</td><td>.0</td><td>1.0</td><td>2.0</td></t<>	44+	.0	.0	1.0	2	0	0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	1.0	2.0
Elementary Highshool         11.0         22.0         4.0         8         2         4         3         6.0         1         2.0<	TOTAL	28.0	56.0	11.0	22	4	8	6	12.0	1	2.0	4	8.0	1	2.0	2	4.0	2	4.0	2	4.0	2	4.0	45.0	90.0
Highshool         9.0         18.0         3.0         6         0         2         4.0         0         .0         1         2.0         0         .0         1         2.0         0         .0         1         2.0         0         .0         1         2.0         0         .0         1         2.0         0         .0         1         2.0         0         .0         1         2.0         0         .0         1         2.0         0         .0         1         2.0         0         .0         1         2.0         0         .0         1         2.0         0         .0         0	Education									10.				5											
College         8.0         16.0         4.0         8         2         4         1         2.0         0         .0         2         4.0         0         .0         0         .0         0         .0         0         .0         0         .0         0         .0         0         .0         1         2.0         13.0         26.0           TOTAL         28.0         56.0         11.0         22         4         8         6         12.0         1         2.0         4         8.0         1         2.0         2         4.0         2         4.0         2         4.0         90.0           Farm size	Elementary	11.0	22.0	4.0	8	2	4	3	6.0	1	2.0	1	2.0	21	2.0	1	2.0	2	4.0	0	.0	1	2.0	19.0	38.0
College         8.0         16.0         4.0         8         2         4         1         2.0         0         .0         2         4.0         0         .0         0         .0         0         .0         0         .0         0         .0         0         .0         0         .0         0         .0         0         .0         0         .0         0         .0         0         .0         0         .0         0         .0         0         .0         1         2.0         13.0         26.0           TOTAL         28.0         56.0         11.0         22         4         8         6         12.0         1         2.0         4         8.0         1         2.0         2         4.0         2         4.0         90.0           Farm size	Highshool	9.0	18.0	3.0	6	0	0	2	4.0	0	.0	$7 \triangle \mathbf{D}$	2.0	0	.0	1	2.0	0	.0	2	4.0	0	.0	13.0	26.0
Farm size </td <td>College</td> <td>8.0</td> <td>16.0</td> <td>4.0</td> <td>8</td> <td>2</td> <td>4</td> <td>1</td> <td>2.0</td> <td>0</td> <td>.0</td> <td>2</td> <td>4.0</td> <td>0</td> <td>.0</td> <td>0</td> <td>.0</td> <td>0</td> <td>.0</td> <td>0</td> <td>.0</td> <td>1</td> <td>2.0</td> <td>13.0</td> <td>26.0</td>	College	8.0	16.0	4.0	8	2	4	1	2.0	0	.0	2	4.0	0	.0	0	.0	0	.0	0	.0	1	2.0	13.0	26.0
<1ha         11.0         22.0         2.0         4         2         4         0         .0         0         2         4.0         0         .0         0	TOTAL	28.0	56.0	11.0	22	4	8	6	12.0	1	2.0	4	8.0	1	2.0	2	4.0	2	4.0	2	4.0	2	4.0	45.0	90.0
0.5-1ha         15.0         30.0         9.0         18         2         4         5         10.0         1         2.0         2         4.0	Farm size											~		_											
0.5-1ha         15.0         30.0         9.0         18         2         4         5         10.0         1         2.0         2         4.0         1         2.0         2.0         2.0	<1ha	11.0	22.0	2.0	4	2	4	0	.0	0	.0		4.0	0	.0	0	.0	1	2.0	0	.0	1	2.0	15.0	30.0
>1ha 2.0 4.0 0.0 0 0 0 1 2.0 0 .0 0 .0 0 .0 0 .0 0	0.5-1ha	15.0	30.0		18	2	4	5	10.0	1				1	2.0	2		1	2.0	2	4.0	1	2.0	28.0	56.0
							0	1		0				0				0	.0			0	.0		
	TOTAL	28.0	56.0	11.0	22	4	8	6	12.0	1	2.0	4	8.0	1	2.0	2	4.0	2	4.0	2	4.0	2	4.0	45.0	90.0

Table 51. Support needed to adapt organic farming

### Organic Farming technologies or Component Wants to Practice

Based on the age,household size, number of years farming,education and farm size of respondents,table 52 presents what component of organic farming (crop rotation,compost,greenmanuring,liquid fertilizers,biological pest control,use of indigenous knowledge and the use of traditional varieties) the vegetable farmers of Bakun want to practice .

Age of respondents. It shows that most 19 (38.0%) respondents want to practice all the organic farming components. Sixteen (32.0%) want to practice crop rotation, most of them are in age bracket of 25-37 and 38-50. There is only 1(2.0%) respondent want to use indigenous knowledge.

<u>Household size</u>. Most of the respondents 19 (38.0%) wants to practice all the component of organic farming. Ten (20.0%) of the respondents is within 6-8 household size. There were 16 (32.0%) respondents wants to practice crop rotation, seven (14.0%) of the respondents is within 6-8 household size.

<u>Number of years in farming</u>. Most of the respondents' wants to practice crop rotation, 16 (32.0%) and 19 (38.0%) respondents' want to practice all the organic farming component. Most of the respondents has been farming for 5-17 years.

<u>Educational attainment</u>. There were 19 (38.0%) respondents wants to practice all the component of organic, ten (20.0%) of the respondents are elementary level, 5 (10.0%) are highschool and four (8.0%) of the respondents are college graduate.

<u>Farm size</u>. It presents that there were 11(22.0%) respondents who have a land area of 0.5-1ha wants to practice all component of organic farming. Most (38.0%) of the respondents wants to practice the different component of organic farming.

PARTICULAR				CC	OMPON	NENT (	OR TE	CHNO	LOGY (	OF ORG	GANIC FA	RMIN	G				TOT	ΓAL
		ROP	GR	EEN		UID	COM	POST	BIOLO		USE (		TRADI	TIONA		L OF	F	%
	ROTA	ATION	MANU	JRING	FERTI	LIZER			PE		INDIGEN		I			HE		
			_				-		CON	-	KNOWLI	-	VARI			OVE		
	F	%	F	%	F	%	F	%	F	%	F	%	F	%	F	%		
Age							2.2								-			
<25	3	6	1	2.0	2	4.0		2.0	2	4.0	0	.0	0	.0	2	4.0	5.0	10.0
25-37	6	12.0	3	6.0	4	8.0	2	4.0	3	6.0	0	.0	1	2.0	6	12.0	14.0	28.0
38-50	6	12.0	0	.0	7	14.0	2	4.0	3	6.0	0	.0	0	.0	4	8.0	12.0	24.0
52-64	1	2.0	2	4.0	1	2.0	1	2.0	1	2.0	1	2.0	1	2.0	7	14.0	8.0	16.0
65+	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	.0	.0
TOTAL	16	32.0	6	12.0	14	28.0	6	12.0	9	18.0	1	2.0	2	4.0	19	38.0	39.0	78.0
Household size																		
<3	0	.0	1	2.0	0	.0	0	.0	0	.0	0	.0	0	.0	1	2.0	2.0	4.0
3-5	6	12.0	0	.0	2	4.0	2	4.0	2	4.0	0	.0	0	.0	5	10.0	17.0	34.0
6-8	4	8.0	2	4.0	5	10.0	1	2.0	2	4.0	1	2.0	- 1	2.0	6	12.0	19.0	38.0
9-11	1	2.0	1	2.0	-0	.0	1	2.0	0	.0	0	.0	1	2.0	1	2.0	5.0	10.0
12+	2	4.0	0	.0	1	2.0	0	.0	0	.0	0	.0	0	.0	1	2.0	4.0	8.0
TOTAL	13	26.0	4	8.0	8	16.0	4	8.0	4	8.0	1 4	2.0	2	4.0	14	28.0	50.0	100.0
Years in farming				6-1	5													
<5	2	4.0	1	2.0	1	2.0	1	2.0	1	2.0	0	.0	0	.0	1	2.0	3.0	6.0
5-17	8	16.0	3	6.0	8	16.0	3	6.0	5	10.0	- 1	2.0	1	2.0	10	20.0	20.0	40.0
18-30	6	12.0	1	2.0	5	10.0	2	4.0	3	6.0	0	.0	1	2.0	6	12.0	13.0	26.0
31-43	0	.0	1	2.0	0	.0	0	.0	0	.0	0	.0	0	.0	2	4.0	3.0	6.0
44+	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	0	.0	39.0	78.0
TOTAL	16	32.0	6	12.0	14	28.0	6	12	9	18.0	1	2.0	2	4.0	19	38.0	39.0	78.0
Education							- Y.			A								
Elementary	5	10.0	2	4.0	5	10.0	4	8.0	2	4.0	1	2.0	2	4.0	10	20.0	16.0	32.0
Highshool	5	10.0	2	4.0	4	8.0	1	2.0	3	6.0	0	.0	0	.0	5	10.0	13.0	26.0
College	6	12.0	2	4.0	5	10.0	1	2.0	4	8.0	0	.0	0	.0	4	8.0	10.0	20.0
TOTAL							5		_	5								
<1ha	5	10.0	1	2.0	4	8.0	3	6.0	4	8.0	1	2.0	1	2.0	6	12.0	12.0	24.0
0.5-1ha	11	22.0	5	10.0	10	20.0	3	6.0	5	10.0	0	.0	1	2.0	11	22.0	35.0	70.0
>1ha	0	.0	0	.0	0	.0	0	.0	0	.0	Ő	.0	0	.0	2	4.0	2.0	4.0
TOTAL	16	32.0	6	12.0	14	28.0	6	12.0	9	18.0	1	2.0	2	4.0	19	38.0	39.0	78.0
		2 = 10	~			=0.0	~		-		-		-					

# Table 52.Organic farming component

### Recommendations of the Respondent

This are statements of reasons or recommendations, of the Bakun farmers related to the support they need in order to adopt organic farming that is based to their demographic, economic and farm profile.

<u>Recommendations to age of respondents</u>. There were 7 (14.0%) respondents recommend that inputs to be used in adapting organic farming shall be provided. Four (8.0%) of the respondents is in age bracket 25-37, two (4.0%) from 38-50 and 1 respondent is within the age of 52-64 years. Another 7 (14.0%) respondents recommend that encouragement or moral support from the government is important. Most of the respondents who has many recommendations is in age bracket of 25-37 years. This are all presented in Table 53.



# Table 53. Recommendation to age of respondents

COMMENDATIONS					А	GE					TO	ΓAL
	<2	5	25-	37	38-	-50	52-	-64	65	+	F	Ģ
	F	%	F	%	F	%	F	%	F	%		
Stable market for organic vegetables because market of												
organic products are limited	0	.0	0	.0	0	.0	1	2.0	0	.0	1	2
organic products are initied	0	.0	0	.0	0	.0	1	2.0	0	.0	1	2
Stable market to be sure that organic												
vegetable will be sold out or												
accepted in the market	0	.0	1	2	2	4.0	0	.0	0	.0	3	6
Co-farmers because it is useless if												
the farm near to you is not organic	0	.0	0	.0	1	2.0	1	2.0	0	.0	2	4
Needs the support of co farmers in												
order that organic farming will be	0	0	0	0		2.0	0	0	0	0		-
successful	0	.0	0	.0	1	2.0	0	.0	0	.0	1	2
We need the support of other												
farmers in promoting organic	0	.0	1	2	0	.0	0	.0	0	.0	1	2
Support of co-farmers in order to	0	0	19.14		0	0		20	0	0	2	4
encourage each in everyone	0	0.0	1	2	0	.0	1	2.0	0	.0	2	2
Agriculturist to explain further what												
really an organic farming is	0	.0	0	.0	1	2.0	0	.0	0	.0	1	2
Local farmers to help farmers go	0	0		2	0	0	0	0		0	1	
organic	0	.0	1	2	0	.0	0	.0	0	.0	1	2
local officials to give assurance as												
well	0	.0	1	2	0	.0	0	.0	0	.0	1	2
Leaders of organic farming to serve as our guider basis for us to adopt												
organic farming	0	.0	0	.0	1	2.0	0	.0	0	.0	1	
organic farming	0	.0	0	.0	1	2.0	0	.0		.0	1	-
Farm supply for organic inputs to												
make organic farming successful	0	.0	1	2	0	0.	0	.0	0	.0	1	2
Needs the help of monitoring terms												
Needs the help of monitoring teams of organic farming to encourage												
farmers	0	.0	2	4	0	.0	1	2.0	0	.0	1	2
	Ĩ			1	Ě	Ŏ		_10	Ŭ			-
Buyers/consumers to be sure that												
they will buy organic vegetable in		0			-		0	0				
volumes	0	.0	0	.0	0	.0	0	.0	0	.0	2	4
Free inputs for organic inputs to												
avoid losses	0	.0	0	.0	0	.0	1	2.0	0	.0	1	2
TAL	14	17	34	11	22	8	19	1	2	4.0	42	84

# Table 53 continued...

RECOMMENDATIONS

COMMENDATIONS					A	GE					ΤΟΤΑ	L
	<2	5	25	-37	38-	50	52-	-64	65	+	F	%
Stable market for organic vegetables because market of organic products are limited	F 0	% .0	F 0	% .0	F 0	% .0	F 1	% 2.0	F 0	% .0	1	2.0
Stable market to be sure that organic vegetable will be sold out or accepted in the market	0	.0	1	2.0	2	4.0	0	.0	0	.0	3	6.0
Co-farmers because it is useless if the farm near to you is not organic	0	.0	0	.0	1	2.0	1	2.0	0	.0	2	4.
Needs the support of co farmers in order that organic farming will be successful	0	.0	0	.0	1	2.0	0	.0	0	.0	1	2.
We need the support of other farmers in promoting organic	0	.0	1	2.0	0	.0	0	.0	0	.0	1	2.
Support of co-farmers in order to encourage each in everyone	0	0.	1	2.0	0	.0	1	2.0	0	.0	2	4.
Agriculturist to explain further what really an organic farming is	0	.0	0	.0	1	2.0	0	.0	0	.0	1	2
Local farmers to help farmers go organic	0	.0	1	2.0	0	.0	0	.0	0	.0	1	2
local officials to give assurance as well	0	.0	1	2.0	0	.0	0	.0	0	.0	1	2
Leaders of organic farming to serve as our guider basis for us to adopt organic farming	0	.0	0	.0	1	2.0	0	.0	0	.0	1	2
Farm supply for organic inputs to make organic farming successful	0	.0	1	2.0	0	.0	0	.0	0	.0	1	2
Needs the help of monitoring teams of organic farming to encourage farmers	0	.0	2	4.0	0	.0	1	2.0	0	.0	1	2.
Buyers/consumers to be sure that they will buy organic vegetable in volumes	0	.0	0	.0	0	.0	0	.0	0	.0	2	4
Free inputs for organic inputs to avoid losses	0	.0	0	.0	0	.0	1	2.0	0	.0	1	2
ΓAL	14	17	34	11	22	8	19	1	2	4.0	42	84

Recommendations to the household size. Table 54 presents that there were 7(14.0%) respondents recommend that inputs to be use in adapting organic farming shall be provided. Seven (14.0%) said that encouragement and moral support must be there. Six (12.0%) of the respondents said that they need more funds and benefits to support organic farming .Most of the respondents 18 (36.0%) within household size of 6-8 has the greater recommendations.

RECOMMENDATIONS	0.1			HOU	SEHOL	D SIZE					TOT	`AL
	_	<3	3-5		6	-8	9-	11	1	2+	F	%
	F	%	F	9	F	%	F	%	F	%		
Provide inputs to be used in adapting organic farming	1	2.0	2	4.0	3	6.0	1	2.0	0	.0	7	14.0
Provide more seminars/trainings/information related to organic farming	0	0.	2	4.0	1	2.0	0	.0	1	2.0	4	8.0
Encourage/moral support to farmers to go organic farming	1	2.0	3	6.0	3	6.0	0	.0	0	.0	7	14.0
More funds/benefits to support	0	.0	1	2.0	5	10.0	0	.0	0	.0	6	12.0
Government should give assurance that they will support organic farmers	0	.0	0	.0	1	2.0	0	.0	0	.0	1	2.0
Provide loans/capitals to farmers	0	.0	3	6.0	2	4.0	0	.0	0	.0	5	10.0
Government should established markets for organic vegetables	0	.0	1	2.0	2	4.0	0	.0	1	2.0	4	8.0
Government should established stable high prices of organic vegetables	0	.0	1	2.0	241	2.0	0	.0	0	.0	2	4.0
Provide assistance to farmers during conversion period	0	.0	0	.0	1	2.0	0	.0	0	.0	1	2.0
Find ways on how to apply organic in an easy way	0	.0	0	.0	0	.0	0	.0	1	2.0	1	2.0
Give assurances to our membership	0	.0	1	2.0	2	4.0	0	.0	1	2.0	4	8.0
Financial support since were not sure if organic farming is successful	0	.0	0	.0	1	2.0	0	.0	0	.0	1	2.0
We need more capital since conversion to organic farming is expensive	0	.0	0	.0	1	2.0	0	.0	0	.0	1	2.0
Needs more capital since we need to sacrifice the volume of our production	0	.0	0	.0	1	2.0	0	.0	0	.0	1	2.0
Financial to be use in starting organic farming	0	.0	0	.0	0	.0	0	.0	0	.0	2	4.0
Pay our expenses in farming in case organic farming fails	0	.0	1	2.0	1	2.0	0	.0	0	.0	1	2.0

Table 54. Recommendations to the household size 

# Table 54 continued...

RECOMMENDATIONS				HO	USEHC	OLD SE	ZE				TOT	ĨAL
		<3	3-		6-			·11		2+	F	%
	F	%	F	%	F	%	F	%	F	%		
Assure that when we go organic our capital returns	0	.0	0	.0	0	.0	0	.0	0	.0	1	2.
If I go organic support me financially since I don't want to sacrifice my money	0	.0	1	2.0	1	2.0	0	.0	0	.0	1	2.
Stable market for organic vegetables because market of organic products are limited	0	.0	0	.0	0	.0	1	2.0	0	.0	1	2.
Stable market to be sure that organic vegetable will be sold out or accepted in the market	0	.0	1	2.0	1	2.0	0	.0	0	.0	3	6.
Co-farmers because it is useless if the farm near to you is not organic	0	.0	2	4.0	2	4.0	0	.0	0	.0	2	4
Needs the support of co farmers in order that organic farming will be successful	0	.0	0	.0	1	2.0	0	.0	0	.0	1	2
We need the support of other farmers in promoting organic	0	.0	0	.0	0	.0	1	2.0	0	.0	1	2
Support of co-farmers in order to encourage each in everyone	1	2.0	0	.0	1	2.0	0	.0	0	.0	2	4
Agriculturist to explain further what really an organic farming	0	0	0	.0	1	2.0	0	.0	0	.0	1	2
Local farmers to help farmers go organic	0	.0	1	2.0	0	.0	0	.0	0	.0	1	2
Local officials to give assurance as well	0	.0	1	2.0	0	.0	0	.0	0	.0	1	2
Leaders of organic farming to serve as our guide or basis for us to adopt organic farming	0	0	1	2.0	0	.0	0	.0	0	.0	1	2
Farm supply for organic inputs to make organic farming successful	0	.0	1	2.0	0	.0	0	.0	0	.0	1	2
Needs the help of monitoring teams of organic farming to encourage farmers	0	.0	0	.0	51	2.0	0	.0	0	.0	1	2
Buyers/consumers to be sure that they will buy organic vegetable in volumes	0	.0	2	4.0	0	.0	0	.0	0	.0	2	4
Free inputs for organic inputs to avoid losses	0	.0	1	2.0	0	.0	0	.0	0	.0	1	2
TAL	3	6	17	34	18	36	2	4	3	6	42	84

<u>Recommendations to educational attainment</u>. It is presented in Table 55 that there were seven (14.0%) respondents recommends that inputs to be use in adapting organic farming shall be provided and more funds or benefits to support them organic farming. There were 17 (34.0%) respondents are in elementary education, 13 (26.0%) finished Highshool and 12 (24.0%) respondents graduated college.

RECOMMENDATIONS			EDUCAT	ΓΙΟΝ			TOT	[A]
	ELEMEN	TARY	HIGH-SC	HOOL	COL-I	EGE	F	
	F	%	F	%	F	%		
Provide inputs to be used in adapting organic farming	5	10.0	1	2.0	1	2.0	7	
Provide more seminars/trainings/information related to organic farming	2	4.0	1	2.0	1	2.0	4	
Encourage/moral support to farmers to go organic farming	3	6.0	2	4.0	2	4.0	7	
More funds/benefits to support organic farming	-3	6.0	2	4.0	1	2.0	6	
Government should give assurance that they will support organic farmers	0	.0	0	.0	1	2.0	1	
Provide loans/capitals to farmers	1	2.0	1	2.0	3	6.1	5	
Government should established markets for organic vegetables	0	.0	2	4.0	5 2	4.0	4	
Government should established stable high prices of organic vegetables	0	.0	1	2.0	1	2.0	2	
Provide assistance to farmers during conversion period	0	.0	0	.0		2.0	1	
Find ways on how to apply organic in an easy way	0	.0	1	2.0	0	.0	1	
Give assurances to our membership	1	2.0	2	4.0	1	2.0	4	
Financial support since were not sure if organic farming is successful	0	.0	10	2.0	0	.0	1	
We need more capital since conversion to organic farming is expensive	0	.0	0	.0	1	2.0	1	
Needs more capital since we need to sacrifice the volume of our production	0	.0	0	.0	1	2.0	1	
Financial to be use in starting organic farming	-0-	.0	1	2.0	1	2.0	2	
Pay our expenses in farming in case organic farming fails	0	.0	1	2.0	0	.0	1	
Financial assure that when we go organic our capital returns	0	.0	0	.0	1	2.0	1	
If I go organic support me financially since I don't want to sacrifice my money		2.0	0	.0	0	.0	1	
Stable market for organic vegetables because market of organic products are limited	0	.0	0	.0	1	2.0	1	
Stable market to be sure that organic vegetable will be sold out or accepted in the market	1	2.0	0	.0	2	4.0	3	
Co-farmers because it is useless if the farm near to you is not organic	2	4.0	0	.0	0	.0	2	
Needs the support of co farmers in order that organic farming will be successful	1	2.0	0	.0	0	.0	1	

## Table 55 continued...

ECOMMENDATIONS		Ι	EDUCATION	1			TO	ΓAL
	ELEMEN	TARY	HIGHSCH	HOOL	COLLI	EGE	F	%
—	F	%	F	%	F	%		
We need the support of other farmers in promoting organic	1	2.0	0	.0	0	.0	1	2.
Support of co-farmers in order to encourage each in everyone	0	.0	2	.0	0	.0	2	4.
Agriculturist to explain further what really an organic farming is	1	2.0	0	.0	0	.0	1	2.
Local farmers to help farmers go organic	0	.0	0	.0	1	2.0	1	2.
Local officials to give assurance as well	0	.0	0	.0	1	2.0	1	2.
Leaders of organic farming to serve as our guide or basis for us to adopt organic farming	1	2.0	0	.0	0	.0	1	2.
Farm supply for organic inputs to make organic farming successful	ot	2.0	0	.0	0	.0	1	2
Needs the help of monitoring teams of organic farming to encourage farmers	<b>51</b>	2.0	0	.0	0	.0	1	2.
Buyers/consumers to be sure that they will buy organic vegetable in volumes	0	.0	2	.4.0	0	.0	2	4.
Free inputs for organic inputs to avoid losses	1	2.0	0	.0	0	.0	1	2
TAL	17	34.0	13	26.0	12	24	42	84

Recommendations to number of years in farming. Table 56 presents that there were 7 (14.0%) respondents recommends that inputs shall be provided,7 (14.0%) said also that they need more funds and benefits to support them go organic farming. Most 21 (42.0%) respondents have been farming within 5-17 years and they have the greater recommendations.

RECOMMENDATIONS			NUN	IBERS	OF YE	ARS IN	FARM	ING			ТО	ΤA
	<	5	5	-17	18-	30	31-	43	4	4+	F	
-	F	%	F	%	F	%	F	%	F	%		
Provide inputs to be used in adapting organic farming	0	.0	2	4.0	4	8.0	1	2.0	0	.0	7	
Provide more seminars/trainings/information related to organic farming	2	4.0	1	2.0	1	2.0	0	.0	0	.0	4	
Encourage/moral support to farmers to go organic farming	1	2.0	3	6.0	2	4.0	0	.0	0	.0	6	
More funds/benefits to support organic farming	1	2.0	4	8.0	1	2.0	0	.0	0	.0	6	
Government should give assurance that they will support organic farmers	1	2.0	0	.0	0	.0	0	.0	0	.0	1	
Provide loans/capitals to farmers	2	4.0	2	4.0	1	2.0	0	.0	0	.0	5	
Government should established markets for organic vegetables	1	2.0	2	4.0	1	2.0	0	.0	0	.0	4	
Government should established stable high prices of organic vegetables	0	.0	1	2.0	1	2.0	0	.0	0	.0	2	
Provide assistance to farmers during conversion period	0	.0	1	2.0	0	.0	0	.0	0	.0	1	
Find ways on how to apply organic in an easy way	1	2.0	0	.0	0	.0	0	.0	0	.0	1	
Give assurances to our membership	0	.0	3	6.0	1	2.0	0	.0	0	.0	4	
Financial support since were not sure if organic farming is successful	0	.0	1	2.0	0	.0	0	.0	0	.0	1	
We need more capital since conversion to organic farming is expensive	0	0.	0	.0	1	2.0	0	.0	0	.0	1	
Needs more capital since we need to sacrifice the volume of our production	0	.0	0	.0	1	2.0	0	.0	0	.0	1	
Financial to be use in starting organic farming	0	.0	1	2.0	1	2.0	0	.0	0	.0	2	
Pay our expenses in farming in case organic farming fails	0	.0	1	2.0	0	.0	0	.0	0	.0	1	
Financial assure that when we go organic our capital returns	0	.0	1	2.0	0	.0	0	.0	0	.0	1	
If I go organic support me financially since I don't want to sacrifice my money	0	.0	0	.0	0	.0	0	.0	1	2.0	1	

# Table 56.Recommendations to number of years in farming

### Table 56 continued...

RECOMMENDATIONS			NU	MBER (	OF YEA	ARS IN I	FARMI	NG			TO	TAL
	<	<5	5-	-17	18	-30	31	-43	4	4+	F	
	F	%	F	%	F	%	F	%	F	%		
Stable market for organic vegetables because market of organic products are limited	0	.0	0	.0	1	2.0	0	.0	0	.0	1	4
Stable market to be sure that organic vegetable will be sold out or accepted in the market	0	.0	2	4.0	1	2.0	0	.0	0	.0	3	(
Co-farmers because it is useless if the farm near to you is not organic	0	.0	1	2.0	1	2.0	0	.0	0	.0	2	4
Needs the support of co farmers in order that organic farming will be successful	0	.0	0	.0	1	2.0	0	.0	0	.0	1	
We need the support of other farmers in promoting organic	0	.0	0	.0	1	2.0	0	.0	0	.0	1	
Support of co-farmers in order to encourage each in everyone	0	.0	12	2.0	0	.0	1	2.0	0	.0	2	
Agriculturist to explain further what really an organic farming	00	.0	0	.0	× 1	2.0	0	.0	0	.0	1	
Local farmers to help farmers go organic	0	.0	1	2.0	0	.0	0	.0	0	.0	1	
Local officials to give assurance as well	0	.0	1	2.0	0	.0	0	.0	0	.0	1	
Leaders of organic farming to serve as our guide or basis for us to adopt organic farming	0	.0	1	2.0	0	.0	0	.0	0	.0	1	
Farm supply for organic inputs to make organic farming successful	0	.0	1	2.0	0	.0	0	.0	0	.0	1	
Needs the help of monitoring teams of organic farming to encourage farmers	0	.0	1	2.0	0	.0	0	.0	0	.0	1	
Buyers/consumers to be sure that they will buy organic vegetable in volumes	0	.0	71	2.0	1	2.0	0	.0	0	.0	2	
Free inputs for organic inputs to avoid losses	0	.0	0	.0		2.0	0	.0	0	.0	1	
TAL	4	8.0	21	42.0	14	28.0	2	4.0	1	2.0	42	8

<u>Recommendations to farm size</u>. Majority of the respondents 28 (56.0%) has a land area of 0.5-1ha and have the greater recommendations. There were 7 (14.0%) respondents recommends that inputs, more funds and benefits shall be extended to them to help do organic farming. These are all presented in table 57.

# Table 57. Recommendations to farm size

OMMENDATIONS			FARM S	SIZE			TOTA	L
	<1h	a	0.5-1	ha	>1	ha	F	
-	F	%	F	%	F	%		
Provide inputs to be used in adapting organic farming	2	4.0	4	8.0	1	2.0	7	14
Provide more seminars/trainings/information related to organic farming	2	4.0	2	4.0	0	.0	4	8
Encourage/moral support to farmers to go organic farming	3	6.0	4	8.0	0	.0	7	14
More funds/benefits to support organic farming	2	4.0	4	8.0	0	.0	6	12
Government should give assurance that they will support organic farmers	0	.0	1	2.0	0	.0	1	
Provide loans/capitals to farmers	2	4.0	3	6.0	0	.0	5	1
Government should established markets for organic vegetables	2	4.0	2	4.0	0	.0	4	
Government should established stable high prices of organic vegetables	2	4.0	0	.0	0	.0	2	
Provide assistance to farmers during conversion period	0	.0	1	2.0	0	.0	1	
Find ways on how to apply organic in an easy way	0	.0	ſ	2.0	0	.0	1	
Give assurances to our membership	1	2.0	3	6.0	0	.0	4	
Financial support since were not sure if organic farming is successful	0	.0	-1	2.0	0	.0	1	
We need more capital since conversion to organic farming is expensive	0	.0	1	2.0	0	.0	1	
Needs more capital since we need to sacrifice the volume of our production	0	.0	o <sup>r</sup> 1	2.0	0	.0	1	
Financial to be use in starting organic farming		.0	2	4.0	0	.0	2	
Pay our expenses in farming in case organic farming fails	0	.0	1	2.0	0	.0	1	
Financial assure that when we go organic our capital returns	0	.0	1	2.0	0	.0	1	
If I go organic support me financially since I don't want to sacrifice my money	0	.0	1	2.0	0	.0	1	
Stable market for organic vegetables because market of organic products are limited	0	.0	1	2.0	0	.0	1	
Stable market to be sure that organic vegetable will be sold out or accepted in the market	2	4.0	1	2.0	0	.0	3	
Co-farmers because it is useless if the farm near to you is not organic	0	.0	2	4.0	0	.0	2	
Needs the support of co farmers in order that organic farming will be successful	0	.0	1	2.0	0	.0	1	

# Table 57 continued...

RECOMMENDATIONS		F	FARM	SIZE			TOTA	TAL
	<1	ha	0.5-	1ha	>1	ha	F	%
-	F	%	F	%	F	%		
Support of co-farmers in order to encourage each in everyone	0	.0	1	2.0	0	.0	1	2.0
Support of co-farmers in order to encourage each in everyone	0	.0	2	4.0	0	.0	2	4.
Agriculturist to explain further what really an organic farming is	0	.0	1	2.0	0	.0	1	2.
Local farmers to help farmers go organic	0	.0	1	2.0	0	.0	1	2.
Local officials to give assurance as well	0	.0	1	2.0	0	.0	1	2.
Leaders of organic farming to serve as our guide or basis for us to adopt organic farming	0	.0	I	2.0	0	.0	1	2.
Farm supply for organic inputs to make organic farming successful	0	.0	1	2.0	0	.0	1	2.
Needs the help of monitoring teams of organic farming to encourage farmers	1	2.0	0	.0	0	.0	1	2.
Buyers consumers to be sure that they will buy organic vegetable in volumes	0	.0	2	4.0	0	.0	2	4.
Free inputs for organic inputs to avoid losses	1	2.0	0	.0	0	.0	1	2.
TOTAL	13	26.0	28	56.0	1	2.0	42	84.

#### SUMMARY, CONCLUSION AND RECOMMENDATION

### Summary

The study was conducted to determine the perception of farmers on the organic vegetable production in Gambang Bakun, Benguet as well as to the willingness to go organic.

Fifty farmers from the different sitios of Gambang serve as respondents. Data gathered was done through personal interview guided by questionnaire.

All data gathered was evaluated across demographic profile, economic and farm profiles of respondents. Respondents attitude on organic farming are uncertain and rather enough knowledge on the environment or health aspect of organic farming. Respondents claimed no knowledge on the technical aspect, low knowledge on the socio-economic aspect, and moderate knowledge on the accreditation, certification and support aspect of organic farming. There results implies that almost all of them have insufficient knowledge on organic farming.

Farmers of Gambang Bakun are willing to shift to organic farming ,the study reveal that respondents who are in elementary level, having a 0.5-1ha farm, age 25-37,household size of 6-8 member and respondents who engaged in farming for 5-17 years are very much willing to go into organic farming.

Farmers that are within the age 25-37, household size of 6-8 member, engaged in farming for 5-30 years, that are within elementary level and have a farm size of 0.5-1ha farm needs the support of the government and want to practice all the component of organic farming which are the fallowing, crop rotation, green manuring, liquid fertilizers, compost or vermicomposting, biological pest control, use of indigenous knowledge and

use of traditional varieties. This indicates that respondents have been unknowingly practicing principles of organic farming.

They suggest that for them to adapt organic farming, the government must provide inputs and encourage them further to go into organic farming.

### **Conclusion**

Among all the evaluated replies of respondents, almost half of them are aware of organic farming but are of inadequate or insufficient technical knowledge on this though most of them have adequate awareness on the environment and health aspects of organic farming. Respondents in the middle age exhibit more interest in going to organic agriculture than their younger or older peers. However, to go into organic farming, they suggest that government provide support through input provision and more information, training and education to Gambang farmers if organic farming is to be encouraged here. It would be easier to start with convincing and supporting middle- aged farmers as they have a more open attitude towards organic farming than their peer.

### Recommendation

Since farmers of Gambang Bakun are interested to go organic farming, they must be responsible enough to attend seminars and need some participation to trainings in order for them to understand more what organic farming is.

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### APPENDIX

### A. Interview Schedule

Direction: Please answer the following items by writing the information needed or putting checkmark on the space provided. Rest assured that all information solicited in this questionnaire will be treated confidentially. Thank you so much for your cooperation.

I. Demographic Factors

- 1. Name (optional): \_\_\_\_\_
- 2. Age: \_\_\_\_\_
- 3. Sex: \_\_\_\_\_
- 4. Marital Status: ( ) Single ( ) Married ( ) Separated ( ) Widowed
- 5. Address: \_
- 6. Household Size:
- 7. Highest Educational Attainment:

8. Ethnicity: ( ) Kankanaey ( ) Ibaloi ( ) Tagalog ( ) Ilocano ( ) others, pls. specify

9. Membership to Organizations

	Type of	No. of Years as
Organization	Membership	Member
(Farmers,NGO,	(Officer or	
Socio-civic,	Member)	
etc.)		
AS AS		
101		
705. 4		
		·
	(Farmers,NGO, Socio-civic,	(Farmers,NGO, Socio-civic,(Officer or Member)

- II. Economic Profile
  - 1. Annual income from farming: \_\_\_\_\_
  - 2. Other sources of income: \_\_\_\_\_
  - 3. Annual income from other sources: \_\_\_\_\_
  - 4. Number of years engaged in farming:

### III. Farm Profile

- 1. Farm Size: \_\_\_\_\_(hectare)
- 2. Tenure Status: ( ) Owner
  - () Share Tenant
  - () Leasehold
  - () Certificate of Land Claims/Transfer/Ancestral Domain
  - ( ) Others, please specify \_\_\_\_\_
- 3. Type of Farm: () rain fed upland irrigated
  - () upland rain fed
  - () lowland irrigated
  - () lowland rain fed
- 4. Soil Characteristics: ( ) Loamy
  - () Clay
  - () Sandy
  - () Others, please specify
- 5. Area Planted and Volume of Production

Area Planted (ha.)	Volume of Production (kg.)	Value(Peso/kg)
	.0.	
	Jer	
	07	
	N 191	
10	5.	
	Area Planted (ha.)	Area Planted (ha.)       Volume of Production (kg.)         Image: State of Production (kg.)       Image: State of Production (kg.)         Image: State of Production (kg.)       Image: State of Production (kg.)         Image: State of Production (kg.)       Image: State of Production (kg.)         Image: State of Production (kg.)       Image: State of Production (kg.)         Image: State of Production (kg.)       Image: State of Production (kg.)         Image: State of Production (kg.)       Image: State of Production (kg.)         Image: State of Production (kg.)       Image: State of Production (kg.)         Image: State of Production (kg.)       Image: State of Production (kg.)         Image: State of Production (kg.)       Image: State of Production (kg.)         Image: State of Production (kg.)       Image: State of Production (kg.)         Image: State of Production (kg.)       Image: State of Production (kg.)         Image: State of Production (kg.)       Image: State of Production (kg.)         Image: State of Production (kg.)       Image: State of Production (kg.)         Image: State of Production (kg.)       Image: State of Production (kg.)         Image: State of Production (kg.)       Image: State of Production (kg.)         Image: State of Production (kg.)       Image: State of Production (kg.)         Image: State of Production (kg.)       Image: State of Production (kg.)

- IV. Awareness on Organic Farming (OF)
  - 1. Are you aware of organic farming? \_\_\_ Yes \_\_\_\_ No ( Proceed to No.4)
  - 2. If yes, what are your sources of information about organic farming? Please put checkmark.
    - () Department of Agriculture technicians
    - () Television
    - () Newspaper
    - () Neighbors
    - () Pamphlets, brochures, posters about OF

() Radio

- () Farmers Cooperative or Associations
- () Relatives
- () Others, please specify \_\_\_\_
- 3. What component of organic farming are you aware of? (Please put a checkmark). From these, what organic farming system have you practiced?
  - () Crop Rotation, (please provide sequence)
  - () Green Manuring, (please specify)
  - () Compost/Vermicomposting
  - () Biological Pest control, (please specify)\_
  - () Excluding or limiting the use of synthetic fertilizers and synthetic pesticides, (if limiting synthetic inputs only, please specify ratio)
  - () Indigenous knowledge, (please specify)
  - () Use of traditional varieties, (please specify)
  - () Liquid bio-fertilizers, (please specify)
  - () All of the above
  - () others, (please specify)
- 4. If no, what factors are responsible for your non-awareness on organic farming?
- () Nobody informed me about organic farming
- () There is no available information on organic farming in our locality.
- () Nobody is practicing organic farming in our community
- ( ) Others, please specify \_\_\_\_\_

5. Source of organic materials used (please refer to No.3)

Organic Material Used	Source

6. What are the governments supports that you are aware of? (Please put checkmark).Which among the aforementioned government supports have been provided or extended to you?

TYPE OF SUPPORT	FROM WHOM	AMOUNT OR FREQUENCY
<ul> <li>A. Technical <ul> <li>Participations to seminars/tra</li> <li>Participation to field trips</li> <li>Participation to field days</li> <li>Provision of IEC materials</li> <li>Visitation of technicians/exter</li> <li>Others, please specify</li> </ul> </li> </ul>	nsionist	
B. Material/Input ( ) Seed ( ) fertilizers ( ) Equipment ( ) Others, please specify	2016	
C. Financial ( ) Credit/loans ( ) Market ( ) Crop insurance ( ) Others, please specify		
<ul> <li>D. Others</li> <li>( ) Cooperator to government p</li> <li>( ) Others, pls. specify</li> </ul>	rojects	

7. What are the factors that affect your non-adoption of organic farming?

- () inferior quality of crops/produce
- () slow effect
- () inadequate knowledge
- () not convenient to apply
- () unsanitary
- () low yield
- () no stable market
- () laborious
- () low income
- ( ) others, please specify \_\_\_\_\_

8. What are the external limiting factors that affect your non-adoption of organic farming?

- () There is no safety net instituted by the government in case my farm failed
- () There is limited research to help make organic farming successful
- () There is no established market for organic products
- () There is no strong government support on organic farming
- () No sustained technical support of concerned agencies
- () There is no accreditation group in the locality
- () Others, please specify \_

V. Attitudes on Organic Farming

Direction: Below are statements about how you view organic farming. Please put check mark on the corresponding rating scale.

5-strongly agree; 4-agree; 3-uncertain; 2-disagree; 1-strongly disagree

STATEMENT	5	4	3	2	1
<ol> <li>Organic farming has a very slow effect</li> <li>Lower yield is obtained in organic farming</li> <li>Organic products are inferior in quality</li> <li>It is difficult to comply with certification standards</li> <li>Conversion to organic farming does not give</li> </ol>	[ ] [ ] [ ] [ ] [ ]	[ ] [ ] [ ] [ ]			
<ul><li>economic rewards to farmers</li><li>6. Organic farming provides great opportunity for a farmer to produce diversified products.</li><li>7. There will be less risk of pollution in organic farming.</li><li>8. It is very difficult to meet all the inputs required</li></ul>	[]	[]	[ ] [ ] [ ]	[]	[]
<ul><li>on farm itself.</li><li>9. Organic farming is a method of balancing of nutrients in farm ecosystem for long run.</li></ul>	[]	[]	[]	[]	[]

10. Organic farming improves plant and animal					
as well as public health.	[]	[]	[]	[]	[]
11. Organic products are healthier because	[]	[]	[]	[]	[]
of presence of natural nutrients.					
12. Organic farming requires lower capital input.	[]	[]	[]	[]	[]
13. There is no identified market for organic	[]	[]	[]	[]	[]
products in the locality.					
14. Farming will not be successful without synthetic	[]	[]	[]	[]	[]
fertilizers and pesticides.					
15. There is a high demand of organic products in	[]	[]	[]	[]	[]
the market.					

VI. Extent of Knowledge On Organic Farming

Direction: Below are statements about how you view organic farming. Please put checkmark on the corresponding rating scale. Answers must be limited to the items listed below but include others as per provided by respondents.

5-very knowledgeable; 4-knowledgeable; 3-moderately knowledgeable; 2-low knowledge; 1-no knowledge

A. Technical Aspect

STATEMENT	5	4

Compost/Organic Fertilizer

1. Farm wastes can be processed as fertilizer.	[]	[]	[]	[]	[]
2. Animal wastes (unprocessed) can be readily or directly	[]	[]	[]	[]	[]
applied to the soil.					
3. Soil microorganisms are more active in soils applied	[]	[]	[]	[]	[]
with organic fertilizer than applied with synthetic.					
4. Biological agents can be used to hasten composting.	[]	[]	[]	[]	[]
5. Composts are ready to harvest when the pile is no longer	[]	[]	[]	[]	[]
hot and odorous and the original material or					
substrates is no longer recognized.					
6. Organic fertilizer improves the physico-chemical					
characteristics of the soil.	[]	[]	[]	[]	[]
7. Organic fertilizer has a very slow effect on the	[]	[]	[]	[]	[]
crop's performance.					
8. The conversion period of organic farming is 3 to 5 years.	[]	[]	[]	[]	[]
9. Solid organic fertilizers should be basally applied.	[]	[]	[]	[]	[]
10. The general recommended rate for organic fertilizer	[]	[]	[]	[]	[]
is 40 tons per hectare.					

2

3

1

# Green Manuring

1. Leguminous crops (e.g.mungbean, sesbania, etc.) are	[]	[]	[]	[]	[]
<ul><li>essential sources of organic fertilizer specially nitrogen.</li><li>2. Green manure crops are best plowed under during the flowering stage.</li></ul>	[]	[]	[]	[]	[]
3. Green manuring enhances soil fertility.	[]	[]	[]	[]	[]
Crop Rotation					
<ol> <li>Crop rotation enhances soil fertility.</li> <li>Crop rotation is a very effective pest control measure.</li> </ol>	[ ] [ ]	[]	[]	[] []	[]
3. Crop rotation increase yield or income.	[]	[]	[]	[]	[]
Bio-pest Control					
<ol> <li>Trap crops reduces the incidence of pests and diseases.</li> <li>Baits are effective control measure to some major pests.</li> <li>Plant extracts can be used to control insect pests.</li> <li>Biological control agents like trichogramma and cotesia are effective control measures to specific pests of cereals and vegetables.</li> </ol>	[] [] []	[] [] [] []	[ ] [ ] [ ]	[ ] [ ] [ ]	[ ] [ ] [ ]
Indigenous Knowledge					
<ol> <li>Some indigenous knowledge are helpful in controlling major pests.</li> <li>The applications of sawdust/alnus leaves</li> </ol>	[]	[] []	[]	[]	[]
<ul><li>in seedbeds promotes good seedling stand or vigor.</li><li>3. Putting of stakes within the field help reduce insect pests</li><li>4. Organic farming is nearer to traditional way of farming.</li><li>5. Use of sunflower as a fertilizer and pest control.</li></ul>	[]	[]	[]	[]	[].
Use of traditional Varieties					
<ol> <li>Traditional varieties are drought tolerant.</li> <li>Traditional varieties are more resistant to the attack of insect pests and diseases.</li> </ol>	[]	[]	[]	[]	[]
<ol> <li>Consider the pests and diseases.</li> <li>Lower yield is obtained when using traditional varieties or land races.</li> </ol>	[]	[]	[]	[]	[]
<ol> <li>4. Traditional varieties require lower input.</li> <li>5. Traditional varieties are more nutritious.</li> </ol>	[] []	[]	[]	[]	[] []

B. Socio-Economic Aspect

STATEMENT	5	4	3	2	1
1. Organic farming is expensive especially during the conversion period.	[]	[]	[]	[]	[]
2. Preparation of organic input is laborious and	[]	[]	[]	[]	[]
<ul><li>time consuming.</li><li>3. Lower yield is obtained with organic farming during conversion period.</li></ul>	[]	[]	[]	[]	[]
<ol> <li>4. Land use/farm resources is maximized with organic farming.</li> </ol>	[]	[]	[]	[]	[]
<ul><li>5. Optimum production level is obtained with organic farming.</li></ul>	[]	[]	[]	[]	[]
<ul><li>6. Organically produced products demands higher price.</li></ul>	[]	[]	[]	[]	[]
7. Organically produced product is hard to sell.	[]	[]	[]	[]	[]
C. Environment or Health Aspect					
STATEMENT	5	4	3	2	1
1. Organic farming promotes cleaner or safer environment by maximizing air, soil, and water pollution.		] [	] [	] [	]
2. Organic farming produces safer food products.		1		] [	]
3. Soil fertility is enhanced in organic farming.		[]		[][	]
<ul> <li>4. Organic farming helps balance the ecosystem.</li> <li>5. Organic farming promotes sustainable Agriculture.</li> </ul>	[][]				[]
<ul><li>6. Organic farming promotes good human and animal health.</li></ul>	[]]	[]	[]	[] [	[]
D. Accreditation/Certification/Support Aspect					
STATEMENT	5	4 3	3 2	2	1
<ol> <li>Acquiring certification for organic products requires compliance to specific guidelines set a certifying body.</li> </ol>	[]	[]	[]	[][	]
<ul> <li>2. Certification is important to promote organic to assure the consumers on the quality production and processing.</li> </ul>	[] [	]	[] [	[][	]
<ul><li>3. An accrediting group for organic products is readily accessible in my place.</li></ul>	[]	[]	[]	[]	[]

4. Certified organic products can command higher [] [] [] [] [] price.

VII. Farmer's Interest

1. With all the needed support, will you be willing to shift to organic farming?

() yes

( ) no

2. If yes, what organic farming technologies or component would you like to practice?

- () crop rotation
- () green manuring
- () liquid fertilizers
- () compost/vermicomposting
- () biological pest control
- () use of indigenous knowledge
- () traditional varieties
- () all of the above
- () others, please specify \_

3. What support do you prefer or need in order to adopt organic farming? And why?

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