

Title of Extension project:	BENGUET STATE UNIVERSITY INTERNAL GUARANTEE SYSTEM (BIGS): A Commitment of Enabling Farmers Towards Production of Safe And Nutritious Food
Location:	Based at BSU, La Trinidad but with members from the 13 municipalities of Benguet; and 2 municipalities of Mountain Province
Project Implementer:	Benguet State University - Office of Extension Services (BSU-OES)
Current position/ Designation:	
Agency:	BENGUET STATE UNIVERSITY La Trinidad, Benguet
Contact Number:	0949-142-5115
Email Address:	<u>oes.office@bsu.edu.ph</u>
Project beneficiaries:	240 Members of the Timpuyog dagiti Umannamong iti BSU Internal Guarantee System (TUBIGS), Incorporated; and 13 BSU Research and Extension Units engaged in organic agricultural production of crops
Period Implemented:	Initiated in September 14, 2004, and still operating up to the present

INTRODUCTION

How It All Started

On 14 September 2004, the Benguet State University was self-declared as pro-organic University under the leadership of then president Rogelio D. Colting. The initiative aimed at intensifying the University's advocacy on the sustainable production of safe and nutritious food, which is interchangeably called Organic Agriculture. The declaration gained the attention of national as well as local government units. Sometime in 2006, the University received a commendation from the Office of the President of the Republic of the Philippines. This was followed by the issuance of RDC Executive Committee Resolution Number CAR-011 by the Regional Development Council of the Cordillera Administrative Region supporting the University's declaration, and encouraging other agencies to support the promotion of Organic Agriculture in the region.

As among the offshoots of the declaration, the University through the College of Agriculture, and Office of Extension Services started offering a non-degree Certificate Course in Practical Organic Agriculture (CPOA) sometime in 2008. Moreover, the University also conceptualized and developed an Internal Guarantee System (IGS) for the production of selected crops (strawberry, coffee and highland vegetables). This is the birth of the Benguet State University Internal Guarantee System (BIGS). Early adopters of the BIGS were 32 graduates of the CPOA who decided to rent agricultural spaces at the Balili Experiment Station of the University at PhP12.00 per square meter per year. They eventually organized and registered their group to the Securities and Exchange Commission as Balili Organic Farmers Association (BOFA).

With the need for a facility to market the produce of the farmers, the University through the Office of Extension Services established a transitory organic market which eventually turned into the BSU Internal Guarantee System Center (BIGS Center). The center is envisioned to be a one-stop shop, which may cater the following: sale of pesticide-free or naturally-grown crops, and knowledge management hub relative to organic agriculture. With the foregoing initiatives, the University was

equipped and ready to implement Republic Act 10068 or the Organic Agriculture Act of 2010. In 2013, the Certificate Course in Practical Organic Agriculture was renamed into Qualifying Course for the BSU Internal Guarantee System. This is to highlight the emphasis of the training as a prerequisite of supplying agricultural produce to the BIGS Center. Eventually, suppliers of pesticide-free or naturally-grown vegetables and fruits to the BIGS Center increased to 253 [with 240 farmers, and 13 BSU research and extension units]. Aimed at legitimizing the existence of the group, it was registered to the Securities and Exchange Commission as Timpuyog Dagiti Umannamong iti BSU Internal Guarantee System (TUBIGS) in 2016. To date, the BIGS Center occupies a space at the BSU Compound, Balili, La Trinidad, Benguet. The foregoing chronicle of events forms part of the University's commitment in enabling farmers through the establishment of a holistic scheme towards economic sufficiency, social security, and environmental protection anchored to the 2030 Agenda for Sustainable Development. Central to the University's commitment then is to contribute to the achievement of the 17 Sustainable Development Goals (SDGs).

BIGS OBJECTIVES

Generally, BIGS aims at strengthening the advocacy of the University on Organic Agriculture through the operation of a functional technology demonstration mechanism that showcases production, processing and marketing of pesticide-free or naturally-grown agricultural crops. It has the following specific objectives:

1. to establish an Internal Guarantee System (IGS) to serve as a participatory guarantee system along organic production of highland crops;
2. to empower farmers towards the utilization of appropriate technologies along organic agriculture; and
3. to establish a center that would cater the marketing needs of the farmers while serving as one stop-information shop.

IMPACT OF EXTENSION PROJECT

It may be heartwarming to claim that the BIGS project has influenced lives of various people from different demography. The following enumerates the modest outcomes [and maybe influences] of the BSU Internal Guarantee System:

1. Increasing Number of BIGS Technology Adopters. With the first 32 BIGS technology adopters who leased areas at the Balili Experiment Farm in 2009, it is noteworthy that the present adopters totaled to 253 (240 farmers, and 13 BSU research and extension units as of December 2022). Such data are reflected in Figure 1. The increasing number of adopters manifests the rippling advocacy, compliance, and commitment along organic agriculture.

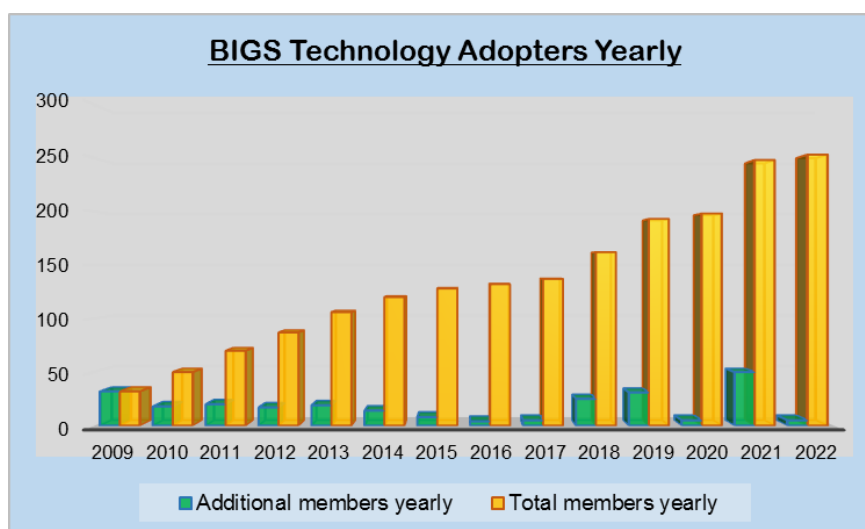


Figure 1. Increment of BIGS technology adopters (2009-2022)

2. Institutional Building. From the basic conduct of trainings and workshops, the extension project evolved into an institution with three pillars - BIGS, TUBIGS, and BIGS Center. The BIGS, being the

participatory guarantee system; TUBIGS as the organizational structure and manpower; and BIGS Center as the one-stop-shop for goods, information, and services.

With the onset of the Participatory Guarantee System (PGS) as mandated by RA11511, the Benguet State University has reconstituted its BIGS technical working group to form a “BSU Participatory Guarantee System Group (Figure 2).” The group will be named “Project ROGER (Revolutionizing the BSU Organic Participatory Guarantee System towards Enabling Rurban Communities), as tribute to the initiatives and advocacies of the late BSU President Rogelio (Roger) D. Colting on organic agriculture. Project ROGER shall now be the University’s oversight unit for the TUBIGS, Incorporated.

Membership to the four (4) committees went through a strategic process. Basically, the process started from the selection of fifteen (15) BSU personnel who have direct or indirect involvement in the operation and/or management of the BSU Internal Guarantee System. The 15 individuals attended the Training of Trainers for Participatory Guarantee System Core Group in the Cordillera Administrative Region (CAR) administered by the Agricultural Training Institute - Cordillera Administrative Region (ATI-CAR). Guided along the provisions of RA11511, the group collectively identified the qualifications for and functions of each committee. Eventually, each of the 15 individuals applied for a particular committee with considerations on their capabilities vis-a-vis the set qualifications and functions.

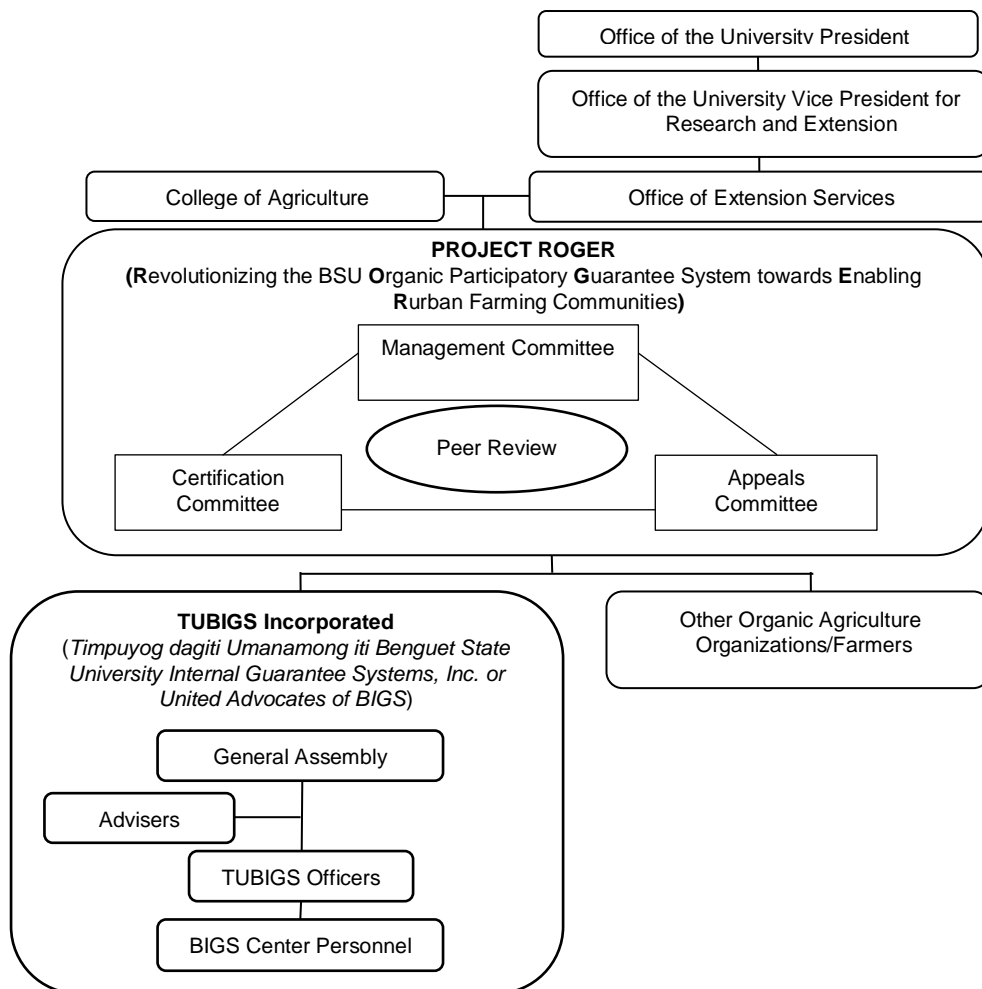


Figure 2. Organizational Structure of BSU PGS

3. Contributions to the University along Instruction. Aside from being instrumental in enabling farmers, the BIGS has its regular role during various assessment exercises in the University. To name some, the BIGS has come to the rescue during SUC Leveling sometime in 2017, Accreditation of various academic programs much more in the College of Agriculture, Certificate of Program Compliance

(COPC), and others. It may also be considered that the BIGS made some contributions towards the conceptualization of academic programs on organic agriculture like the Bachelor of Science in Agriculture - Major in Organic Agriculture; Certificate in Organic Agriculture, and [previously] Master in Organic Agriculture under the Open University program. Among the initial accomplishments include the attendance of various University personnel [particularly from the College of Agriculture, and Research/Extension Sector] to local, national, and international trainings on Organic Agriculture.

4. Contributions to the University along Research and Extension. It is also worth-mentioning that various researchers (professionals and students inside or outside BSU) gained from inputs accessed from the BIGS Center. At least 13 BSU Research and Extension Units were also able to take part along the implementation of the BIGS project. The following centers were able to showcase their technologies through the BIGS Center: Cordillera Organic Agriculture Research and Development Center (Farm Code - BSU01), OES Demo Farm (BSU02), ORS Demo Farm (BSU03), Food Science Research and Innovation Center (BSU04), Climate Smart Agriculture Center (BSU05), Northern Philippines Root Crops Research and Training Center (BSU06), BSU Rearing House (BSU07), BSU Mushroom Project (BSU08), Institute of Highland Farming Systems and Agroforestry (BSU09), BSU Biocon Project (BSU10), OES Demo Farm 2 (BSU11), ORS Strawberry Demo Farm (BSU12), BSA-Organic Agriculture thesis area (BSU13).
5. Contributions to the BIGS Technology Adopters. A humble stories on how Benguet State University organic farming flourished and rippled to its surrounding communities was documented. BIGS Technology Adopters shared great experiences and earnings from their participation in this organic farming advocacy. Amidst small production of organic products, they were able to earn income from it which helped compensate some of their economic needs. It is, therefore, imperative to document how the BIGS became instrumental along the realization of such commitment. Some of their compliments include:

“no paggep iti income iti organic makasave kami met ta atleast nga adda ti maikarkaga ijay coop, iti inputs mi, umanayen ti compost laeng isu nga makatipid, kumpara idi conventional kami kapilitan nga aggangang ti inputs ta awan maapit no haan nga maabonoan ken maspray-an.” (With organic farming we are able to save money, we are able to have something in the Coop. Our input would only include compost which is enough, in comparison to conventional farming where we need inputs such as fertilizer and other chemicals to be able to harvest.)

“maymayat ti income iti organic ta maymayat met gamin ti presyo ti organic, idi damo nga conventional kami, agusar kami iti synthetic isunga agpapasupply kami nga talaga ket no nalpas manen agpasupply kami manen, isunga idi addaakun iti BIGS, haanakun nga nag paspasupply, isunga dakkal met a ti tulong iti BIGS Center, idi nagBIGS ak haanakun nga umut-utang iti ited ko kadagiti ubbing ko.” (We have greater income in organic farming compared to conventional farming as we need supplies for synthetic chemicals. BIGS became a great help when I entered as I no longer need synthetic supplies, I also no longer need to take a loan to be able to provide for my children.)

“idi inmuna nga iluglugan ko lang iti jeep ket haan da nga panpansinen ta bassit lang ngem idi baliktaden da ket makita da jay presyo na, ibaga da nga apay nga nangina gayam kumpara ijay sinako nga mula da ket kastoy lang ti bayad na, isu nga damagen da no kasatnu nga agmiembro iti daytoy BIGS, ket naawis ko met a dagitoy kakadwa nga farmers ditoy ayanmi.” (At first, I was ignored when I transport my produce in jeeps as it is less in quantity but if they see the price it is more expensive than the sacks of produce they plant, that is why they ask me how to become a member of BIGS, I was able to encourage the farmers in our place to join.)

“imbag ketdi a ta adda ti kastoy nga skwelaan nga mangisuru iti pagsayaatan iti mula, ta ti farmer garud ket haan la garuden nga nagskwela ket haan pay nga maisuruan, isu nga adda talaga ti pagkamalian ti mula na, isu nga mayat no adda ti kastoy nga skwelaan ta makasuru ti farmers ken manayunan pay ti ammu da, maawatan na dagiti sitwasyon dagiti mula na metlang.” (It's great to have a school that teaches good agricultural practices. A farmer sometimes commits mistakes in farming, as some did not have proper schooling and some refused to be taught. It's good to have a school like this, for farmers to learn and have additional knowledge, as well as have understanding to different situations of their plant or produce.)

“haanko nga maiyebkas ti pangyaman ko kadagitoy tiga-BSU nangruna dagitoy dedicated servants nga agtatrabaho ditoy ta haan da nga mabanbannug nga mangisuru iti pagsayaatan iti farmers, ket namnamaen mi nga agtultuloy daytoy nga programa iti BSU tapnu napinpintas nga maitawid kadagiti sumarsarunu pay.” (I can’t express my gratitude to the people of BSU, especially those who work tirelessly to teach the farmers. We hope that this program of BSU continues to pass on knowledge to newer generations.)

“Uray sin basket lang ket adda met gayam ti agsubli, idi ada ak iti conventional farming ket nasuruk 40,000.00 ti gastos ko para iti agas. Itadta nga nagshift ak ti organic farming ket saanak en nga aggastos ti kasjay ka ngato ta nasalun-at ti panagmulak ken ti kankanek metlang.” (Even with only a basket [full of produce], there is income. When I was still conventional farming, my expenses for my inputs such as synthetic pesticide reached up to 40,000.00. Now that I shifted to organic farming, I no longer have to spend that much because of my good farming practices and good produce that I also consume.)

MANAGEMENT AND SUSTAINABILITY PLAN OF EXTENSION PROJECT

Aimed at having a smooth management on the operation of the BIGS, the following modalities reflected in Figure 3 were eventually established. It may not have been perfected [through time], but in way, provided guidance along the prolonged operation of the project.

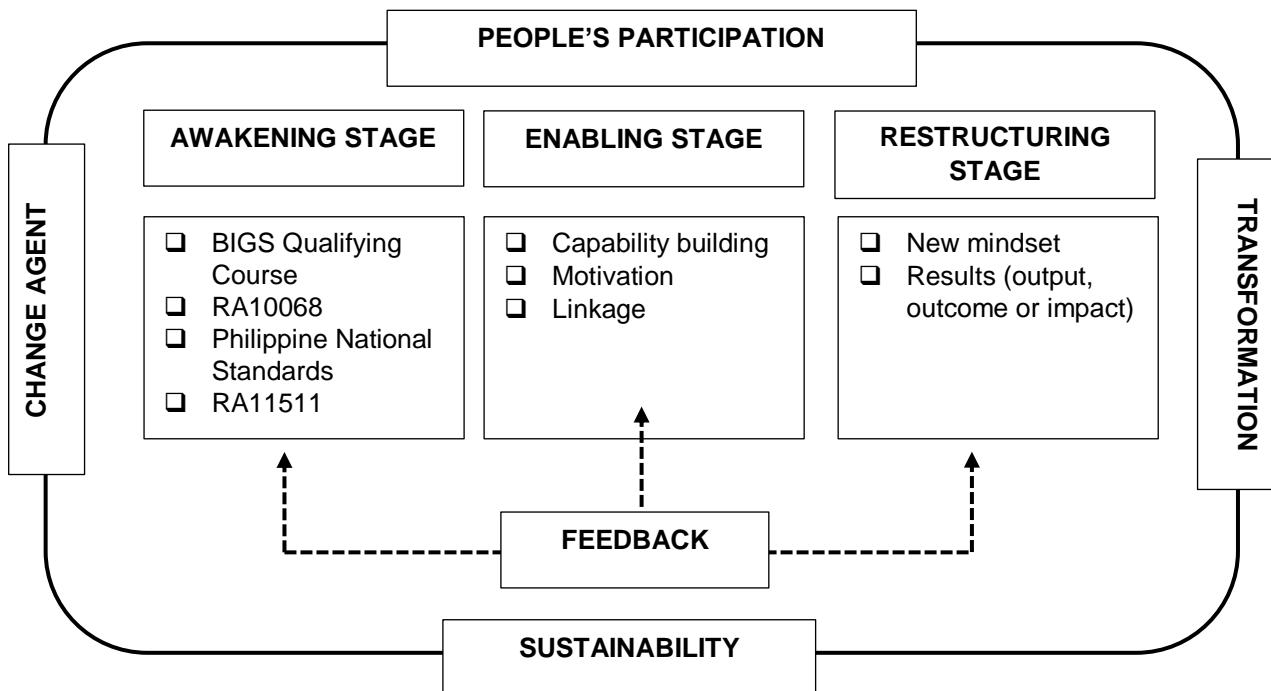


Figure 3. Framework of BSU Internal Guarantee System (BIGS)

1. Establishment of an Internal Guarantee System. Basically, the University developed an Internal Guarantee System (IGS) for the production of selected crops way back in 2008. The protocol, an output of the technical working group designated by the University President Rogelio D. Colting, served as the foundation of succeeding initiatives of the University along organic agriculture. It was baptized “Benguet State University Internal Guarantee System.”
2. Capability Building. To ripple the knowledge and/or skills gained by BSU personnel along organic agriculture, they designed a non-degree training program among capable-and-willing farmers. With some transition stories from the College of Agriculture to the Office of Extension Services (OES), the training program was named “Certificate in Practical Organic Agriculture (CPOA).” Eventually, it was renamed “BIGS Qualifying Course (5 days)” to cater to the query on the legitimacy of the OES in offering a certificate course. Despite all of the challenges, the training program was very instrumental

in empowering farmers along the concepts of organic agriculture, and the [ins and outs] of the Philippine National Standards on Organic Agriculture. Among the offshoots of the declaration was the conducted CPOA and BIGS Qualifying Courses [a continuing training for all interested farmers venturing or to venture into organic crop production]. Anchored on the Office of Extension Services mission of facilitating self-reliance and resiliency, the BSU Office of Extension Services is continuously extending help to the growing number of BIGS Technology Adopters. The first CPOA was in 2008 and by 2009, the Office of Extension Services conducted the training annually. By 2010, three (3) CPOA were conducted, four (4) in 2011, and two (2) in 2012. By 2013, it was renamed as BIGS Qualifying Course where one (1) course was conducted, two (2) in 2014 and one (1) each in 2015, 2017 and 2019. The latest conducted training was in 2021 with two (2) batches to accommodate training requests during the Covid 19 pandemic. As the demand for naturally-grown vegetables increases, more farmers expresses their interest to adopt the BSU Internal Guarantee Systems and compensate this demand. Corresponding trainings were also facilitated to equip the technology adopters with the necessary knowledge and skills related to organic production.

3. Organization of Trained Farmers. To formalize the group of trained farmers, an association was conceived sometime in 2013. The association was named “Timpuyog dagiti Umannamong iti BSU Internal Guarantee System [or United Advocates of BSU Internal Guarantee System). It was registered with the Securities and Exchange Commission in 2016.
4. Establishment of Pilot OA Production Area. To realize the output of the series of trainings, the University opted to designate an area at the Balili Experiment Farm to be tilled by the trained farmers. Starting with 32 farmers, each was assigned with 500 square meters with a lease of PhP12.00 per square meter per year.
5. Issuance of Farm Code. The assignment of a farm code to a particular farmer legitimizes his/her membership to the TUBIGS. Prior to the farm code, the farmer should complete the following: BIGS qualifying course, farm inspection, establishment of account at the BSU and Community Multipurpose Coop, and administration of oath of allegiance (Pledge of Commitment).
6. Establishment of BIGS Center. From a temporary market tables at the covered walkway of the old research and extension building (now College of Public Administration and Governance), it evolved into a center catering both sale of farmers’ products and one-stop-information shop called “BIGS Center.” The BIGS Center operates under the Office of Extension Services. As part of the Technology Piloting, Demonstration and Commercialization division of the OES, it shall showcase products resulting from previous and ongoing attempts and/or initiatives relative to organic agriculture. In other words, the change of the previously used term “market” into “center” is to widen its function from a plain market into a technology-showcase facility. BIGS Center served as a marketing outlet for pesticide-free or naturally grown vegetables and fruits produced by the BIGS Technology Adopters and its farmer-tenants. With its evolution into corporation, it will play a crucial role not only on the sale of crops at the BIGS Center, but more on the improvement of the great job relationship between and among the members leading to a clearer and smarter advocacy on Organic Agriculture. At present the BIGS Center building is at the BSU Compound, Balili, La Trinidad, Benguet.
7. Establishment of a Strategic Payment Scheme. As part of the requirements to be a legitimate member of the TUBIGS, the farmers should establish a savings account with the BSU and Community Multipurpose Coop. Payments of farmers’ goods sold at the BIGS Center are coursed through the cooperative. This is to enable BIGS Technology Adopters to learn and practice saving.
8. Development of Policies. Alongside with the foregoing activities, various policies were eventually crafted and implemented. Among this are the following:
 - ❑ *Maximum number of BIGS Registered Farm(s) per Farmer.* Each BIGS Technology Adopter may be given the chance of registering a maximum of two (2) farms [regardless of location]. Each registered farm will have particular farm code. This is to give wider chances among potential members and not to be monopolized by few individuals who are ahead of financial and other resources relative to organic production.
 - ❑ *Tenure of BIGS Membership.* Membership to the BIGS Center shall be maintained for as long as both parties (BIGS Center and BIGS Technology Adopter) benefits from the

relationship. Meanwhile, violation (s) on the BIGS Standards and Policies will be considered ground(s) for the termination of membership.

- ❑ *Fair Pricing.* The fixed prices of the BIGS Center products are based on the production cost of the commodities prepared by the BIGS Technology Adopters from different areas and result of computed production cost differs from individuals' growers and location. The prices for each product at the BIGS CENTER is an average from production cost of BIGS Technology Adopters from different location.

9. *Engagement with high-end markets.* As a market support mechanism, engagements with local and national market outlets have been established. One notable engagement is with “*Vida Organica*,” a private entrepreneur that supplies organic products to malls, hotels and/or known business establishments in the metro manila areas.
10. *Regular Monitoring.* Chaired by the OES, a pool of experts along organic agriculture (soil science, crop production, pest and disease management, social science, and others) was established and designated to undertake farm inspection [*on-the-spot, regular or periodic*], validation/re-validation and certification. Such is also linked with the Manila Economic and Cultural Office - Taipei Economic and Cultural Office (MECO-TECO) project for the Rapid Bio-assay Pesticide Residue Analysis.
11. *Administration of Bi-Annual General Assembly.* Before the COVID-19 pandemic, a regular biannual general assembly has been administered among the members. Such activity has been observed to be very useful for updates, bonding, sharing of experiences, and recognition of performing members.

GENDER SENSITIVITY OF THE EXTENSION PROJECT

The following matrix reflects the sensitivity of the BIGS project relative to sex and [of course] gender. Starting with the TUBIGS members, the number of females is almost equal to the male members. Such is also observed in the selection of TUBIGS officers. Of the 20 officers, 9 are females. At the BIGS Center, only one male is part of the service crew; the rest are females. Another BIGS function where gender sensitivity is observed is on the designation of members to the inspection or monitoring committee. Of the 11 members, 4 are females. These are among the manifestations that gender and development is part of the totality of the BIGS project.

On the other hand, it has been observed that during meetings and general assemblies, there has been no concern on the participation from the different sexes and/or genders. Nevertheless, with the evolution on gender and development policies and programs, the BIGS project planned to incorporate a visible GAD component in the BIGS Qualifying Course package.

Table 1. Gender sensitivity of the BIGS project

Various BIGS Functions	Disaggregation as to Sex		Total
	Male	Female	
TUBIGS Farmer Members	122	118	240
TUBIGS Officers	11	9	20
BIGS Center Service Crew	1	3	4
BIGS Monitoring, and Farm Inspection/Certification Team	7	4	11

UNIQUENESS OF THE EXTENSION PROJECT

The BIGS project may not be absolutely unique much more that “organic agriculture” is not coined in the Philippines. Nevertheless, declaration of BSU as pro-organic University by President Rogelio D. Colting in 2004 was the first of its kind [in the Philippines]. The declaration was even quite earlier than the Promotion and Development of Organic Agriculture in the Philippines through Executive Order 481. Likewise, the establishment of the BSU Internal Guarantee System sometime in 2008 seemed to be earlier than Republic Act 10068 [otherwise known as Organic Agriculture Act of 2010]. Furthermore, the BSU Internal Guarantee System stood and operated as a Participatory Guarantee System (PGS). As such, it advocated and practiced a participatory certification system [*second party certification*], which is not common among organic practitioners in the locality.

This is NOT with the reason that BSU does not believe in the third party certification as mandated by law. Merely, the University sympathizes with the [small and very small] farmers who cannot afford to pay for the third party certification. Meanwhile, it is a “jump off point” for the farmers towards other forms of certification.

SUMMARY

The Benguet State University Internal Guarantee System (BIGS) is instrumental in the establishment of a participatory protocol relative to the production of safe and nutritious food among farmers in the province of Benguet and nearby communities. This is a salient breakthrough of the University’s self-declaration as Pro-Organic Agriculture University in 2004. Established in 2008, the BIGS aims at strengthening the advocacy of the University on Organic Agriculture through the operation of a functional technology demonstration mechanism that showcases production, processing and marketing of pesticide-free or naturally-grown agricultural crops. The BIGS operates under the Office of Extension Services, College of Agriculture, and Timpuyog dagiti Umannamong iti BSU Internal Guarantee System (TUBIGS) Incorporated, an association of the 253 BIGS technology adopters. Membership to the BIGS follows a systematic process which include completion of a 5-day BIGS Qualifying Course; inspection of the candidate’s organic farm; establishment of savings account at the BSU Multipurpose and Community Cooperative; administration of oath of allegiance; and issuance of farm code. The issuance of farm code legitimizes the membership of the farmer. It further signals the supply and sale of the farmer’s agricultural produce at the BIGS Center. Despite the intermittent problems encountered, the BIGS has modestly contributed to the provision of holistic entrepreneurship and livelihood opportunities among the organic practitioners.

CONCLUSION

Despite the various challenges along the implementation of the BIGS, it may be concluded that the extension project has substantial evidences along the fulfillment of its objectives on (a) establishment of an Internal Guarantee System (IGS) to serve as a participatory guarantee system along organic production of highland crops; (b) empowerment of farmers towards the utilization of appropriate technologies along organic agriculture; and (c) establishment of a center that would cater the marketing needs of the farmers while serving as one-stop-information shop.

RECOMMENDATION

With the foregoing premises, the following recommendations are put forward:

1. The BIGS project be institutionalized and sustained;
2. Efforts to enhance the BIGS’ quality control should be among the priorities; and
3. Align BIGS with new developments along Participatory Guarantee System.

PHOTO DOCUMENTATION



Launching and Trainings



The BIGS Center



Monitoring and Farm Inspection



General Assembly and Renewal of Pledge of Commitment