
The Leyte Normal University (LNU) Extension Project: Empowering Rural Women through Entrepreneurship

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ABSTRACT

Up until the present, the Leyte Normal University (LNU) facilitated various extension projects aimed to faithfully serve in ways consistent to its core values, namely: excellence, integrity and service. The project entitled “Technical skills expertise in food processing and entrepreneurship in the municipality of San Isidro, Leyte” which was conceived in collaboration with the Municipality of San Isidro, Leyte and the Department of Trade and Industry (DTI) of the Province of Leyte, endeavoured the application and utilization of food processing technologies generated by the Department of Home Arts Entrepreneurship (HAE) of LNU to the members of the San Isidro Women’s Association (SIWA). Here, food processing practices from procurement, packaging, labelling until costing/pricing of the products as well as product diversification were introduced to the enthusiastic members of the SIWA. These activities were hoped not only to augment the economic status and the social well-being of the beneficiaries but also, to inspire them to develop their own enterprises.

The 18-month project resulted in a series of trainings which was participated by a total number of 108 active members of SIWA. The beneficiaries, depending on their needs, interests and the commodities available in their respective barangays, were trained in order to develop their skills in food processing and entrepreneurship. Impact assessment involving both qualitative and quantitative methods such as field visits, documentary analysis and in-depth interviews with the SIWA members was implemented throughout the conduct of the project. Important outcome of the project was the utilization of several food technologies which led to the improvement of economic status, awareness of safety and sanitary practices in food handling, enhanced knowledge in entrepreneurship, empowerment and specifically, strengthened linkages among parties involved, as already perceived. The creation of the San Isidro Women’s Livelihood Centre provided with several food processing equipment such as industrial-type oven for baking, meat grinder, soybean grinder among others and the provision of a head start capital amounting to PhP 104,000.00 were the two most significant contributions of the project.

Overall, the services offered by the project were rated “highly satisfactory” and generally, “satisfactory”. It also effectively acted as channel in transferring food processing technologies conceived by LNU to its constituents. Routine monitoring and further assistance to SIWA members are deemed essential to assure sustainability of the livelihood project.

Keywords: *Extension project, livelihood, entrepreneurship, community*

INTRODUCTION

The super typhoon “Yolanda” (international name “Haiyan”) that struck on November 8, 2013, left one of the deadliest devastations in the Philippines, especially in the provinces of Leyte and Samar (FAO, 2015). Confirmed fatalities reached 6,300 across the country, 5,877 of which were recorded in the Eastern Visayas. The super typhoon Yolanda also caused an estimated PhP 89.6B worth of total damages to agriculture, infrastructure, social and cross-sectoral networks (Philippine National Disaster Risk Reduction and Management Council (NDRRMC), 2015). The municipality of San Isidro, Leyte was not spared from the wrath of super typhoon Yolanda. This 4th class municipality belonging to the province of Leyte, Philippines severely suffered from wiped-out houses and lack of access to food and safe drinking water (Philippine Statistics Authority (PSA), 2015). Public schools, business establishments, public infrastructures as well as agriculture and fisheries production were also severely affected leaving the town economically crippled. Needs assessment conducted by the local government unit (LGU) months after the super typhoon identified food security and extreme unemployment as main challenges needing immediate attention.

For state universities and colleges, relief efforts are usually channelled through extension services, which is one of its core functions along with instruction and research. As mentioned in literature, extension services provide positive contributions to the beneficiaries through technology adoption, improved economic status, and empowerment (Garforth *et al.*, 2003; Cunguara & Moder, 2011; Lapple *et al.*, 2013). The efficiency of extension services as a platform in utilizing the university’s expertise, technologies and resources for transfer to its constituents is increasingly acknowledged. Indeed, in a study conducted by Dercon *et al.* (2007), extension service created positive impact on poverty alleviation with a reduction of 9.8 % and increased consumer growth by 7.1 % in Ethiopia. Extension services also play a role in improving social skills, self-confidence and even, developing leadership skills among beneficiaries as briefly mentioned by Cagasan & Velasco (2009). The roles of extension services as an object of reform and an engine of innovation were also mentioned by Rivera & Sulaiman (2009). According to these authors, extension services being an object of reform is called upon to adopt and at the same time, being an engine for advancing innovation, taking on new roles beyond traditional technology dissemination. In most extension services, usual subjects being targeted are farmers, marginalized women and small food processors/vendors in rural areas who are largely unfamiliar with the current trends and technologies. It is through extension services that these usually reluctant beneficiaries are introduced to new and improved techniques and technologies as compared to what they are routinely using (Ilvento, 1997).

The extension service conducted in San Isidro, Leyte was conceived after the Leyte Normal University (LNU) received a formal notice from the LGU-San Isidro expressing their need for assistance in facilitating technical skills training on food processing as means of alternative livelihood. LNU, with its long standing relationship with the municipality, attends to the call by creating the livelihood project entitled “Technical skills expertise in food processing and entrepreneurship in the municipality of San Isidro, Leyte”. The project follows the concept introduced by Diem (2016) in which needs, interests and commodities available from various *barangays* belonging to San Isidro municipality were taken into account in order to encourage full participation of the target beneficiaries. The project endeavoured the utilization of mature food technologies generated by the Department of

Home Arts Entrepreneurship (HAE) of LNU in processing local commodities as source of livelihood. It is the main goal of this project to help residents of San Isidro, Leyte particularly women and out-of-school youth in elevating their economic status hopefully ending food inadequacy.

METHODOLOGY

Project site and proposal preparation

The municipality of San Isidro is categorized as a 4th class municipality belonging to the province of Leyte (Figure 1). It is approximately 234 km away from Tacloban City, the capital city of Leyte. The residents of San Isidro, Leyte depend primarily on farming, fishing, tricycle and *habal-habal* driving as main sources of income. During the super typhoon Yolanda, however, most of its fishing and agriculture sectors were severely affected leaving the municipality economically crippled. Hence, relief efforts and alternative livelihood are well desired.



Figure1. Map of Leyte Province showing San Isidro municipality.

The project was conceived through the initiative of the Extension Office of the LNU after receiving formal communication with the LGU-San Isidro requesting for assistance in facilitating technical skills training on food processing as means of alternative livelihood. Preliminary meeting was immediately organized that was attended by duly authorized representatives of the LGU-San Isidro and the HAE Department of LNU to discuss and define the objectives/purposes, scopes, planning and the expected deliverables of the project. The meeting resulted in the preparation of proposal that was submitted to the Department of Trade and Industry (DTI)-Leyte for funding. After careful deliberation, the DTI approved the project with grant amounting to PhP 1M. The LGU-San Isidro pledged an additional grant amounting to PhP 200,000.00 as its counterpart. Shortly, the memorandum of agreement (MoA) was made and executed among the parties involved and funds were transferred to the LGU-San Isidro as the primary implementing agency.

Project initiation

Food processing experts from the HAE Department of LNU together with representatives of LGU-San Isidro held an orientation program for the members of San Isidro Women's

Association (SIWA) and other interested individuals including out-of-school youth and small-scale vendors (Table 1).

Table 1. Profiles of the project's beneficiaries.

Characteristics	Frequency (f)	Percentage (%)
<i>Age (years)</i>		
19-35 years old (young adults)	40	37.0
36- 55 years old (middle aged adults)	52	48.1
56-75 years old (Older adults)	16	14.8
<i>Total</i>	108	100.0
<i>Civil Status</i>		
Single	19	17.6
Married	80	74.1
Widow	9	8.3
<i>Total</i>	108	100.0
<i>Educational attainment</i>		
Elementary level	11	10.7
Elementary graduate	21	19.4
High school level	17	15.7
High school graduate	31	28.7
College graduate	28	25.9
<i>Total</i>	108	100.0
<i>Occupation of husband or parents</i>		
Government employee	17	15.7
Farmer	41	40.0
Fisherman	18	16.7
Driver	12	11.1
Carpenter	11	10.2
Business related	9	8.3
<i>Total</i>	108	100.0

Table 2. Local commodities available from various *barangays* of San Isidro, Leyte.

<i>Barangay</i>	Agriculture products	<i>Barangay</i>	Agriculture products
1. Banat-i	Peanuts, sweet potato, banana	10. Daja-daku	Corn, coconut, peanuts
2. Basud	Cassava, peanuts, banana	11. Hda Maria	Assorted vegetables
3. Bawod	Banana, assorted vegetables	12. Linao	Peanuts, cassava
4. Biasong	Fish, corn, cassava, coconut	13. Paril	Rice, cassava, banana
5. Bunacan	Peanuts, cassava, sweet potato, corn, soybeans, rice	14. San Miguel	Peanut, breadfruit, cassava, cassava
6. Busay	Peanuts, cassava, soybeans, corn, sweet potato	15. San Jose	Sweet potato
7. Cabungaan	Peanuts, cassava, soybeans, corn, sweet potato	16. Taglawigan	Sweet potato
8. Capiñahan	Pineapple, cassava	17. Tinago	Sweet potato, cassava
9. Crossing	Corn, banana, corn, peanut	18. Daja-diot	Assorted vegetables

A total of 108 individuals committed to participate in the project of which most of them were active members of SIWA hailing from different *barangays* of San Isidro. The beneficiaries were grouped based on their needs, interests and commodities available in their respective *barangay*. Table 2 shows the main agriculture products of San Isidro.

The project was implemented into two phases: food processing and financial literacy (Table 3). In phase 1, various trainings were conducted to enhance the skills of the beneficiaries in preparing indigenous food products utilizing agricultural commodities available in the community. All the necessary food processing equipment, utensils and raw ingredients were procured in the local market/shops or in neighbouring markets/shops when not available. The concepts on safety and sanitary practices in food handling were also introduced. Phase 2 consists of enterprise resource management. Concepts ranging from accounting/book keeping to product costing/pricing and marketing were introduced.

Table 3. The two phases of the project and its corresponding trainings.

Trainings	No. of participants	Date of training
<i>Phase 1: Technical Skills in Food Processing</i>		
a) Safety and sanitary practices in handling foods including general manufacturing practices (GMPs)	93	July 22, 2015
b) <i>Tokwa</i> and fruit-flavoured <i>taho</i> processing	12	July 31, 2015 to Aug 9, 2015
c) Banana bread making	32	Aug 8, 2015
d) Cassava-pineapple pie making	28	Aug 9, 2015
e) Mango and jackfruit jam making	36	Aug 29, 2015
f) Banana, sweet potato and cassava chips processing	34	Aug 29, 2015
g) <i>Tocino</i> making	27	Sept 17, 2015
h) Peanut butter and peanut brittle processing	26	Sept 17, 2015
i) Tart and noodles making	42	Sept 26, 2015
j) <i>Longanisa</i> processing	25	Sept 21, 2016
<i>Phase 2: Financial Literacy Training</i>		
a) Accounts and book keeping	34	Aug 15, 2015 and Sept 26, 2015
b) Product pricing and marketing strategies	28	Sept 26, 2015
c) Product packaging and labelling	28	Sept 26, 2015

Impact assessment

Impact assessment using qualitative and quantitative methods such as field visits, documentary analysis and in-depth interviews were implemented throughout the conduct of the project (July 2015-October 2016). Five beneficiaries participating the *tokwa* and fruit-flavoured *taho* processing were requested to engage in an in-depth interview session. Representatives from this group were selected as they successfully commercialized their products soon after the training. During the actual interview, the respondents were asked regarding their significant experiences on the training, the various challenges met and their

impression on the overall contributions of the training in terms of product marketing. The information obtained were processed using content analysis in which interpretative and basic analyses were used to decipher from the extracts of data transcripts the informative and hidden important messages during each interview. Information gathered through documentary analysis were tabulated and discussed in this paper.

RESULTS AND DISCUSSION

Project phases

Based on the wide socio-demographic characteristics of the beneficiaries, the project employed a combined strategy on basic financial literacy and food processing training. The combined strategy encourages the participants to use abundant resources available in their community and at the same time, advise them on how to use these resources to open opportunities that have not yet been fully exploited in the local market.

Socio-demographic profiles of beneficiaries

As shown in Table 1, the project was mostly participated by housewives (74.07 %) of which majority were unemployed (data not shown). While few numbers of the unemployed participating housewives reasoned that they chose to stay home and placed family as their priority, majority reasoned the challenges they faced regarding exclusion of adult women from the labour market. Considering that 48 % of the participants were at the age range of 36-55 years old, the latter may be explained by the age limit that is usually imposed by employers. This condition is of national concern. Indeed, in a survey conducted by Kessler & Rother (2016), they found that majority of Filipinos working abroad complained about “age limit” set in the Philippines, a limit which most companies/agencies set at the age of thirty or even at the age of twenty-five. Employment opportunities seem less beyond this limit. Another plausible explanation that married women face being discriminated against in job hiring was pointed out by De Jesus & Mapa (2015). According to these authors, employers have lesser preference for married women as they need to provide additional benefits such as entitlement to special leave following childbirth. Considering the educational attainment of the beneficiaries, majority were high school graduate only (29 %). As reflected also in the same table, common employment engaged by most beneficiaries’ spouse or parents (in the case of young women) are farming and fishing with few numbers engaging in small-sale enterprise. According to PSA (2014), farmers and fishermen are among the least paid workers in the Philippines with an average daily wage of PhP 315.00. In 2014, the Food Nutrition Research Institute (FNRI) suggested that for a Filipino family consisting of 5 members to eat right, their daily diet should closely resemble what is reflected in Table 4.

Table 4. Total whole day’s meals (3 meals) expenses for a family of 5 (modified from FNRI 2014).

Products	Unit price (PhP) x Quantity	Total price (PhP)
Regular milled rice (National Food Authority)	27.00 x 2 kilos	54.00 / 16 cups of rice
Galunggong	140.00 x 2 1/2 kilos	310.00 / 18 pieces
Saging lakatan	45.00 x 1 bundle	45.00 / 15 pieces
Malunggay	10.00 x 3 bundles	30.00
TOTAL		439.00

Based on this calculation, a family would have to set aside PhP 439.00 to be able to eat right. Considering, however, the minimum daily income of a farmer/fisherman to be at PhP 315.00, the family of 5 members will have to face a standing deficit of approximately PhP 124.00 daily and thus, creation of alternative livelihood is relevant.

Trainings

Four (4) of the most participated trainings under the food processing training follow the order: safety and sanitary practices in handling foods (Figure 2)>tart and noodles making>mango and jackfruit jam making (Figure 3)>banana, sweet potato and cassava chips making (Figure 4). The training conducted on food safety and sanitation was intended to inform the beneficiaries on food hazard avoidance by strictly abiding with the guidelines stipulated in the Code on Sanitation of the Philippines (Presidential Decree No. 856). The other abovementioned trainings were well-participated since most of the raw ingredients were locally available, affordable and fitting to be sold in schools and bus terminals. In particular, processing of mango and jackfruit jam, examples of preserved food products characterized with long shelf-life, gained high interest among beneficiaries due to its high potential for export market. Although fewest numbers of beneficiaries were noted to have attended the training on *tokwa* and fruit-flavoured *taho* processing, the beneficiaries were able to immediately adopt the technology and commercialized their products. These products were either in high demand among local communities or in neighbouring Gawad Kalinga (GK) villages for feeding programs. Trainings falling under financial literacy were also well participated indicating the beneficiaries' willingness to use the gained skills as source of livelihood to augment economic status.

Overall Assessment of the Different Trainings Conducted

Beneficiaries obtained first-hand information and know-how from duly recognized food experts and thus, they were generally satisfied with the information they obtained from the respective trainings. Except for the peanut butter making that was rated below satisfactory due to processing delays (i.e. purchased grinder with factory defected parts), majority of the trainings were generally rated good to better than their current practices (Table 5).

Table 5. Beneficiaries' ratings on various trainings conducted.

Trainings	No. of trainees	≥ Good	Percentage (%)
<i>Phase 1: Technical Skills in Food Processing</i>			
a) Safety and sanitary practices in handling foods including general manufacturing practices (GMPs)	93	93	100.0
b) <i>Tokwa</i> and fruit-flavoured <i>taho</i> processing	12	12	100.0
c) Banana bread making	32	30	93.8
d) Cassava-pineapple pie making	28	26	92.9
e) Mango and jackfruit jam making	36	36	100.0
f) Banana, sweet potato and cassava chips processing	34	33	97.1
g) <i>Tocino</i> making	27	25	92.6
h) Peanut butter and peanut brittle processing	26	20	77.0

i) Tart and noodles making	42	40	95.2
j) <i>Longanisa</i> processing	25	23	92.0
<i>Phase 2: Financial Literacy Training</i>			
a) Accounts and book keeping	34	31	91.2
b) Product pricing and marketing strategies	28	26	92.9
c) Product packaging and labelling	28	26	92.9



Figure 2. Training on safety and sanitary practices in handling foods.



Figure 3. Training on mango and jackfruit jam making.



Figure 4. Training on banana and cassava chips making.

Experiences and Outcomes of the Adoption Technologies

Randomly selected beneficiaries shared their overall impression of the project. The beneficiaries were grateful for the assistance they received from the food experts of LNU and other resource persons. The trainers' wide knowledge and approachability, according to the beneficiaries, moved them to adopt the various food technologies being taught as well as encourage them to start their own businesses.

"LNU's assistance from proposal stage until its completion was truly commendable. They sent their best faculty and trainers here in San Isidro. Being the president of SIWA, I am really indebted to LNU, without their assistance this training will not be realized. Now we are given a chance to improve our lives so we will make the best out of it." [Respondent 1]

Having been aware of the potential hazards during food preparation, the beneficiaries are committed to abide with the basic procedures required in preventing physical, chemical and microbial contamination. The use of personal protective equipment (PPEs) was also mentioned.

"I am very glad that we had the training on food safety and sanitation. It made us aware on how to prevent the entry of bad bacteria to the foods that we will be selling. Even in preparing food in the house, I have applied what I learned from the training such as washing hands before and after handling foods, always trimming of fingernails and wearing of apron and hairnet." [Respondent 2]

"How to avoid cross-contamination from the raw ingredients to the cooked foods was one of the important lessons I learned from the training. Before, when I'm preparing foods, I used to just place the raw meat on the same table with the cooked foods" [Respondent 5]

Beneficiaries also shared that their acquired know-how on production and marketing of *tokwa* and *tuyo* has helped them provide for their family's daily expenses. Cheston & Kuhn (2002) have mentioned that employed women, such as in the case of the Philippines, usually spend their income on their children, thus income derived from alternative livelihood helped these women in meeting the needs of their children. One of the participants also mentioned that she stops bothering her spouse when it comes to providing their daily meals. Such commentaries were also noted by De la Cruz (2016) on their extension programs.

"Seeing my share for the first time was so memorable to me. I used the money to buy food for my family. I am happy to experience the fruit of all our hard works. I know that the amount I shared is not much but I believed this is just the start" [Respondent 2]

The training did not only improve their food processing skills and augment their economic status, it also increased their self-confidence and widened their circle of friends. Majority of the beneficiaries also mentioned that the training made them closer and created camaraderie with the other members of the association.

"The mayor really exerted huge effort to help the members of SIWA. She provided us with the San Isidro Women's Livelihood Center; such action motivated us to do more. The mayor is also a member of the association. The LGU is providing us a seed capital of Php 104,000.00 which can be utilized by the members only if a business proposal will be submitted. These progresses after the training encourage other members to join the activities of the association again" [Respondent 1]

CONCLUSIONS AND RECOMMENDATIONS

In conclusion, the alternative livelihood program through the joint initiative of the LGU-San Isidro, HAE Department and the DTI successfully provided alternative livelihood to the women residents of San Isidro Leyte. The project consisting of two phases: food processing training skills and financial literacy, provided an opportunity to use abundant resources available in the local community and at the same time, use these resources to open opportunities that have not yet been exploited in the local market. The project was rated good to generally, better than their current practices. Beneficiaries did not only commit to use the skills they gained from the training to improve their economic status but also enhance their social well-being and interaction among each other. Routine monitoring and further assistance to SIWA members are deemed essential to assure sustainability of the livelihood project.

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