Assessment of Rural Women's Agricultural Livelihood Activities in Lala, Lanao del Norte: Basis for Designing a Curriculum Integrating Gender and Development in MSU-IIT IRDA

ADELFA C. SILOR AMELIA T. BUAN JOE ELSON C. SUAREZ ANRA A. DEL ROSARIO

Abstract

Rural men and women, particularly in low-income households, participate in various activities to enhance their living standards by optimizing income-generating activities, reducing susceptibility and risk, and fulfilling other household goals. As a result, people rely on their livelihoods to support themselves. Therefore, the development of agriculture is greatly influenced and largely dependent on rural women. This study aimed to assess the rural women's agricultural livelihood activities in Lala, Lanao del Norte. The method used in this study is quantitative and qualitative for evaluating rural women's agricultural livelihood activities. Since it is a pandemic, three (3) enumerators from Lala, Lanao del Norte, gathered data using ten open-ended questions. The research team used purposive random sampling in choosing the one hundred fiftyone (151) participants. Findings reveal that there must have a "shift in response to new opportunities as well as over the life cycle of men and women. Women farmers in the municipality of Lala, Lanao del Norte's rural areas do not have the same access to agricultural livelihood activities as males. Stereotypes among men farmers dominate agricultural livelihood activities. According to research, the agricultural sectors must develop strategies for agricultural extension and women's empowerment. Findings advocate that the MSU-IIT IRDA Curriculum may also have vocational skills development training and short-term courses on agricultural education while including gender and development principles.

Keywords: Livelihood, farmers, food, sustainability, women

Introduction

Women play essential food production roles (Aneke & Alio, 2018). A significant portion of the increase in output from these women will depend on ensuring that both men and women farmers have adequate access to agricultural resources at a reduced cost. Still, it was noted that these women had less access to purchase agricultural resources than men because they were financially dependent on their husbands (Aneke & Alio, 2018). People use their livelihoods for self-sufficiency, survival, and prosperity. Enhancing the standard of living and financial security of women who reside in somewhat remote and sparsely inhabited places is typically referred to as "empowering rural women" (Singh, Thakur, & Gupta, 2013). However, statistics don't accurately reflect the extent of rural women's involvement in agro-based activities, mainly because most of the work done by women at home and on farms is concealed as routine work (Singh, Thakur, & Gupta, 2013). Empowering women is widely believed to help close the gender gap in agricultural output (Diiro, Seymour, Kassie, Muricho & Muriithi, 2018). The advancement of agriculture depends greatly and fundamentally on rural women. As a result, since Lala, Lanao del Norte is known for its agriculture, it emphasizes women's engagement in rural development efforts.

At this point, it is necessary to evaluate the agricultural livelihood activities of rural women to ascertain which training best enables them to increase their income and reduce their poverty level. Additionally, through this study, gender mainstreaming in families will be included in the analysis and debate based on the Magna Carta for Women R.A. 9710. Thus, the MSU-IIT IRDA Curriculum will be updated into a Gender and Development Curriculum with a focus on Rural Agricultural Education in light of the findings of this study for the Gender Issues and or GAD mandate, "Small Farmers and Rural Workers," refers to people who are directly or indirectly employed in small farms and forest areas, as well as those who work on commercial farms and plantations, whether they are paid or not, regularly or only during certain seasons.

There is a gender gap in agricultural livelihood activities, according to the findings of the associated studies listed above. This is the main subject of the study evaluating women's livelihood activities in agriculture in the rural areas of Lala, Lanao del Norte. More particularly, this study intends to investigate rural women's attributes toward poverty reduction, their ways of livelihood income generation, and obstacles to and recommendations for sustainable rural women's agricultural livelihood activities.

Theoretical Framework of the Study

This research endeavor is anchored to the Magna Carta of Women (Republic Act No. 9710). The Magna Carta of Women (M.C.W.CW) is a comprehensive law on women's human rights that aims to end discrimination by recognizing, defending, enforcing, and promoting the rights of Filipino women, particularly those who are members of society's marginalized groups. This theory relates to the rural women involved in small-scale farming who are engaged in small-scale agriculture and are even recognized by the community. Another theory is the Agricultural Development Theory's effort to understand the social and economic factors influencing agricultural change. This theory on agricultural development is needed for rural women as their basis to be open-minded and ready to accept changes to improve their livelihood activities.

Review of Related Literature

Empirical studies utilizing the growth linkages approach have appeared to demonstrate significant multiplier effects in the rural economy resulting from growth in agricultural output (Ellis, 1998). The direction of causality in the growth linkage model is always from farm growth to nonfarm growth, not the other way around (Ellis, 1998). This implies that antipoverty policy's primary focus should be farm output growth the primary focus of anti-poverty policy should be growth in farm output (Ellis, 1998). The spatially-extended concept of the household is the social arena around which the most economic work on livelihood diversification has been undertaken. The strength of this approach is its recognition of the joint circumstances in which household members find themselves; its weakness is its neglect of the determinants and effects of diversification differentiated between women and men (Ellis, 1998). Gender will often be found to constrain the patterns of income diversification pursued by the household Davies & Hossain, 1997, as cited in Ellis, 1998).

A significant feature of income diversification in sub-Saharan Africa has been the so-called feminization of agriculture caused by the predominantly male involvement in long-distance migration to cities, mines, and plantations (Low, 1986; Berry, 1989; Hart, 1994, as cited in Ellis, 1998). Gender thus affects diversification options, in terms of which income-earning opportunities are taken up and which are discarded, and also affects diversification patterns, as manifested by unequal male and female participation rates in different branches of non-farm activity (Ellis,

1998). Gender also affects diversification outcomes for the welfare and status of family members as individuals. Some research findings suggest that a greater share of cash income accruing to women results in more of the household budget spent on food is spent on food and in improvements to family nutrition (Hoddinott & Haddad, 1995; Quisumbing et al., 1995 as cited in by Ellis, 1998). Since poverty is closely associated with low levels of education and lack of skills, education is also a key factor contributing to the greater ability of better-off families to diversify compared to poorer families. Targeting education and skills training for poor village households will likely impact their ability to diversify income sources (Ellis, 1998).

Farms indicate that they are most likely to respond to the provision of low-cost finance. Farms, recording the highest incidence of poverty, report that they are most likely to respond to improved physical infrastructure, better information on business opportunities, and `access to specific consulting services. Farms were most keen on increasing their involvement in agriculture, which is surprising, considering their successful engagement in off-farm employment (Davidova, Fredriksson, Gorton, Mishev, & Petrovici, 2012, p.224).

Our findings illustrate that, because of farm workers' weak position, the women attempt to hide their engagement in the cooperative from farm owners for fear of a backlash, including loss of privileges or even eviction from the farm. This concealment bespeaks the gravity of unequal power relations and the monumental task of changing them. Secondly, unequal power struggles extend to the patriarchal structure of households. Women are expected to carry out all reproductive work and only work at the farm when labor is needed, creating dire dependency (Orton et al., 2001 as cited in Lemke, Yousef, Eisermann, Bellows, 2012 p.37).

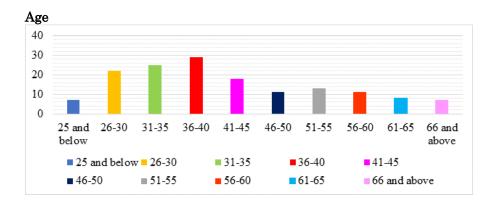
Methodology

This study used quantitative and qualitative methods to evaluate rural women's agricultural livelihood activities in Lala, Lanao del Norte. Qualitative research aims to explain why and how people behave in particular ways, whereas quantitative analysis aims to "explain phenomena by gathering numerical data that are analyzed using mathematically based approaches (in particular statistics)." It offers indepth knowledge of human behavior. Rural women, particularly those from low-income households in the various barangays of the municipality of Lala, Lanao del Norte, were the participants in this study. The mayor, the

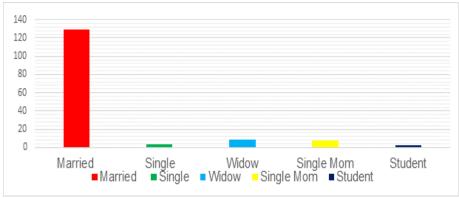
barangay captain, officials, and presidents of women's associations were among the key informants who participated in the data collection. To choose the participants, a purposeful random sampling approach was applied.

The Participants

The participants and beneficiaries of this research study were rural women from low-income families engaged in agricultural livelihood activities, members of women's and farmer's associations, government officials, and other essential informants in Lala, Lanao del Norte. One hundred fifty-one participants responded to the surveys.







Data Gathering Procedure

Because of the COVID-19 epidemic, the study team and the research assistant could not travel to collect the data. As a result, the research team wrote to Chancellor Sukarno D. Tanggol via Vice Chancellor for Research and Extension Dr. Jinky B. Bornales to request that the travel budget be realigned into the payment for the honoraria of the three enumerators from Lala, Lanao del Norte who carried out the data collection. The enumerators received the questionnaires from L.B.BC. As part of the data collection process, the enumerators wrote letters to the mayor of Lala, Lanao del Norte, requesting permission to interview rural women's household families in the town's various barangays as well as to the barangay chairman, president of the women's association, and key informants in the town's government offices. The enumerators met with the research subjects after getting the mayor's clearance, reviewed the consent form, and then allowed them to sign it. The questionnaires were distributed to those who signed. All surveys were collected three weeks later and returned to the research team in Iligan City through L.B.BC.

Results and Discussion

Table 1. Reasons for women in agricultural livelihood activities

| Participants' Answers | Frequency | Percentage |
|---|-----------|------------|
| panginabuhian nga naandan(have been used | 50 | 33.11 |
| to have this kind of livelihood ever since) | | |
| kabilin sa ginikanan (Ancestors' livelihood | 4 | 2.67 |
| and continued now and then) | | |
| makaya nga trabaho (The only livelihood | 9 | 5.97 |
| that can be quickly done) | | |
| walay lain nga trabaho (No other livelihood | 22 | 14.57 |
| except this agriculture) | | |
| namat-an ug gidak-an nga trabaho (Since | 11 | 7.29 |
| birth and growing up | | |
| Stage in life, agriculture is the source of | | |
| livelihood) | | |
| miuswag among panginabuhi (In agriculture | 14 | 9.27 |
| livelihood, it improves our income into happy | | |
| life) | | |
| wala, ganahan lang (As long as there is | 1 | 0.66 |
| little source of income, okay for life) | | |
| presko among makaon nga ani (Household | 2 | 1.33 |
| family members have always been eating | | |
| fresh and healthy food from agricultural | | |
| livelihood) | | |
| naay income (Agriculture livelihood has | 23 | 15.23 |
| income) | | |
| to learn agriculture | 0.66 | 1 |
| Provide food/needs of the family | 13 | 8.61 |
| It's a livelihood | 1 | 0.66 |
| Total | 151 | 100 |

Table 1 results show that most participants' justifications for engaging in agricultural livelihood activities are *panginabuhian nga naandan*, meaning that these activities have already become social norms for rural farmers (Hillenbrand & Miruka, 2019). However, Hillenbrand and Miruka (2019) concluded, "there is much to learn about how norms work, how to change them, and how interventions might most strategically build on this understanding, particularly in agriculture." Therefore, to enhance the farmers' sources of income in rural areas, "change in reaction

to new possibilities as well as over the life cycle of men and women" is required (Hillenbrand & Miruka, 2019).

Table 2. Types of women's agricultural activities

| Participants' Answers | Frequency | Percentage |
|--|-----------|------------|
| Magbasak abang sa yuta (rent Ricefield) | 59 | 39.07 |
| Maggabot/ mangibot/ Pamona/ mangam lot/ | 26 | 17.22 |
| mag-ani | | |
| maisan (corn planting) | 12 | 7.95 |
| fishing | 5 | 3.31 |
| magbuhi ug kahayopan | 13 | 8.61 |
| mananum lagutmun (crops) tanum | 22 | 14.57 |
| prutas (plant fruits) sagingan (banana | | |
| planting), and vegetables | | |
| sari-sari store/ baligya utanon (vegetable | 12 | 7.95 |
| selling)/ daghan, bisan unsa (any kind) | | |
| food processing/ furniture making | 2 | 1.32 |
| Total | 151 | 100 |

Table 2 displays the responses from the participants about the different agricultural livelihood activities they have taken part in. The results demonstrate that most participants' primary source of agricultural income is their rice fields. The land does not belong to them. The land is being rented in its place. They have occasionally utilized the money they make from their rice fields to pay the land (rent). An additional finding of this study showed that most rural farmers depend heavily on laboring in the rice fields and are paid daily. This indicates that individuals can generate income through rice planting and other necessary tasks in the rice field. As a result, this suggests that their income is insufficient to meet their family's demands. It is an underground tuber, similar to sweet potatoes. It contains a lot of beta-carotene, an antioxidant that works wonders to increase blood vitamin A levels, especially in children (Bjarnadottir, 2019). Due to their high vitamin B6 content, bananas have several health benefits, including being high in potassium and pectin, a type of fiber that helps with the generation of white blood cells, reduces swelling, guards against type 2 diabetes, helps with weight loss, and strengthens the neurological system (Szalay, 2017). The family members, especially the children, also benefit from eating fruits and vegetables.

Table 3. Women's income to spend for their families

| Participants' Answers | Frequency | Percentage |
|------------------------------------|-----------|------------|
| help our family's needs | 63 | 42 |
| Help the education of children | 8 | 5.33 |
| ibaligya ang abot selling products | 48 | 32 |
| income/saving | 5 | 3.33 |
| puhunan gamay tindahan | 6 | 4 |
| puhunan baboyan/hayupan | 8 | 5.33 |
| dili na mopalit sa uban | 9 | 6 |
| makakaon ug fresh products | 3 | 2 |
| Total | 151 | 100 |

Table 3 shows the responses from the participants regarding how their household's agricultural livelihood activities serve to reduce poverty. The study's findings showed that agricultural livelihood activities significantly reduce poverty. The proceeds from the sales were used to fund their children's schooling and startup costs for side businesses like growing pigs and running a "sari-sari" shop. Additionally, they have utilized them as a food source through their agricultural productivity. The results indicate the need for the farm sector's assistance in making these livelihood activities sustainable. "Livelihood diversification on rural household food security," for instance. Diversifying one's livelihood is often regarded as the most promising method of avoiding these shocks and transforming the rural economy (Yenesew & Masresha, 2019). Yenesew and Masresha's study (2019) "highlighted that rural households merged non-farm and off-farm activities instead of relying on on-farm exclusively, having a significant favorable influence on household food security." According to various constraints and opportunities in the rural economy, diversification is an infinitely varied social and economic process (Ellis, 1998).

Table 4. Men and women's access to agricultural livelihood activities

| Participants' Answers | Frequency | Percentage |
|-----------------------|-----------|------------|
| same access | 55 | 36.42 |
| not the same | 95 | 62.92 |
| no answer | 1 | 0.66 |
| Total | 151 | 100 |

Table 4 lists the participants' respond whether women have the same access to agricultural livelihood activities as men. According to the findings, more than half of the female farmers in the rural areas of Lala, Lanao del Norte municipality indicated that females did not have the same access to agricultural livelihood activities as men. According to the findings, most farmers are men and pursue stereotypical agricultural living patterns. Agriculture exhibits gender disparity. The study by Hillenbrand et al. (2015, quoted by Dia and Najjar 2019) supports this claim by asserting that "gender transformational approaches should emphasize the significance of examining and changing the structures and uneven power relations which cause gender inequality." Women in developing countries contribute most of the agricultural work (Dia & Najjar, 2019). The gender roles in women's families and communities frequently lead to misperceptions about how important women's work is and undervalue it. Extension services must be mindful of gender because it underpins every part of daily life or risk escalating inequity (Dia & Najjar, 2019). According to the study, agricultural sectors must develop plans for agricultural extension and women's empowerment. Taking women's involvement in agriculture seriously can help them become important participants in extension programs. Hence, it is essential to acknowledge that women can be farmers (Dia & Najjar, 2019).

Table 5. Challenges of rural women in their agricultural livelihoods

| Participants' Answers | Frequency | Percentage |
|----------------------------------|-----------|------------|
| financial | 58 | 38.41 |
| none | 20 | 13.25 |
| suffer more | 32 | 21.19 |
| easily got tired & often sick | 7 | 4.64 |
| Weak | 9 | 5.96 |
| Don't know the heavy work of men | 15 | 9.93 |
| lack training | 7 | 4.64 |
| Failure | 1 | 0.66 |
| working at the City | 1 | 0.66 |
| forget eating meals | 1 | 0.66 |
| Total | 151 | 100 |

Table 5 displays the participant's responses to questions about rural women's difficulties and concerns in maintaining agricultural livelihood activities. The findings demonstrate that "financial" problems and

concerns are the most prevalent among rural women trying to keep their agricultural livelihoods. This suggests that rural women's agricultural output is insufficient to meet the needs of the home households in terms of a livelihood in agriculture. In addition, the degradation of natural resources, political stability, and other variables significantly stimulate or inhibit growth (Zepeda, 2020). The contributions of advances in agricultural technology and the human capital of farmers and farm workers are given particular focus. Farm technology advancements increase labor productivity and generate excess agricultural labor to supply workers for the expanding urban areas. In addition, some studies show that better nutrition increases labor productivity and permits people to work longer hours, making human capital expenditures more appealing (Huffman & Orazem, 2007).

Table 6. Recommendations of rural women for MSU-IIT Integrated Rural Development Academy (IRDA)

| Development Academy (IItDA) | | |
|--|-----------|------------|
| Participants' Answers | Frequency | Percentage |
| the government continues helping the poor in | 28 | 18.54 |
| the education of our children/scholarship | | |
| cooperation among people and IRDA to improve | 11 | 7.28 |
| living | | |
| put-up agricultural training center | 3 | 1.99 |
| TESDA schools | 1 | 0.66 |
| employment | 4 | 2.65 |
| equal participation of men and women | 4 | 2.65 |
| help young children reach their dreams | 4 | 2.65 |
| increase the price of palay per kilo | 2 | 1.33 |
| required people to plant trees | 1 | 0.66 |
| give more livelihood programs | 14 | 9.27 |
| continue giving good service to the people | 27 | 17.88 |
| more training for men and women farmers | 25 | 16.55 |
| informed people activities of the school | 3 | 1.99 |
| provide capital and seedlings to farmers | 8 | 5.3 |
| equality in the law | 4 | 2.65 |
| provide types of machinery in farming | 1 | 0.66 |
| 4 Ps | 2 | 1.33 |
| no answer | 9 | 5.96 |
| Total | 151 | 100 |

The proposals made by the participants for the MSU-IIT Integrated Rural Development Academy (IRDA) are shown in Table 6 to promote more effective and equal engagement of men and women, boys and girls, in agricultural livelihood activities and agricultural production. According to the findings, residents of the Municipality of Lala, Lanao del Norte's barangays highly recommended that MSU-Integrated Rural Development Academy (IRDA) "continue aiding the impoverished families to have scholarships in the education of their children." Therefore, according to this conclusion, MSU-IIT IRDA will likely give many scholarships in agricultural livelihood production.

More training for both male and female farmers are what the participants proposed. To increase their knowledge and abilities in agricultural livelihood activities, Lala, Lanao del Norte, recommended that the MSU-IIT IRDA develop an extension program called "training for men and women farmers." In addition, participants recommended having more agricultural livelihood initiatives to enhance their living standards, as indicated in the findings.

Once more, this is a continuation of the MSU-IIT IRDA's assistance initiative for the Municipality of Lala, Lanao del Norte. Participants also suggested "establishing an agriculture training center." This implies that MSU-IIT IRDA will also serve as a training facility for farmers. According to all of the recommendations shown in the table above, MSU-IIT IRDA has to have an agricultural program that integrates gender and development, especially regarding gender equality in the production of farming livelihoods. Agricultural development initiatives that don't address chronic gender inequities miss chances to have a more significant impact (Kristjanson, Bryan, Bernier, Twyman, Meinzen-Dick, Kieran, Ringler, Jost, and Doss, 2017). So, based on the findings of this study, the MSU-IIT IRDA Curriculum may also engage in vocational skills training short-term courses that emphasize agricultural education while also including gender and development concepts.

Conclusion and Recommendations

The agricultural sectors must develop plans for farm extension and women's empowerment in light of the study's conclusions. Taking women's involvement in agriculture seriously can help them become essential participants in extension programs. Hence, it is important to acknowledge that women can be farmers. Designing projects with gender in mind is a requirement for decision-makers in agricultural development. The key in

the MSU-IIT IRDA curriculum will be developing accountability for serving women and men while providing them with skills and knowledge of advanced gender-transformative practices and intervention choices. The UNESCO Sustainable Development Goals can be attained with the MSU-IIT IRDA curriculum (SDGs) support.

References

- Aneke, C. U., & Alio, A. N. (2018). Women's Participation in Agriculture, Prospects, and Challenges for Increased Food Production in Enugu State-Nigeria. *British Journal of Education*, 6(11), 29-35.
- Bjarnadottir, A. (2019). Sweet Potatoes 101: Nutrition Facts and Health Benefits. Retrieved from https://www.healthline.com/nutrition/foods/sweet-potatoes
- Diaz, I., & Dina Najjar, D. (2019). Gender and agricultural extension: Why a gender focus matters. Journal of Gender, Agriculture and Food Security (AgriGender), 4(2), 1-10. doi:10.19268/JGAFS.422019.1
- Davidova, S., Fredriksson, L., Gorton, M., Mishev, P., & Petrovici, D. (2012). Subsistence farming, incomes, and agricultural livelihoods in the new member states of the European Union. Environment and Planning C: Government and Policy, 30(2), 209-227. doi:10.1068/c1195r
- Diiro, G., Seymour, G., Kassie, M., Muricho, G., Murithi, M., & Zereyesus, Y. (2018). Women's empowerment in agriculture and agricultural productivity: Evidence from rural maize farmer households in western Kenya. PLOS ONE, 13(5), e0197995-. doi:10.1371/journal.pone.0197995
- Ellis, F. (1998). Household strategies and rural livelihood diversification. The Journal of Development Studies, 35(1), 1-38. DOI: 10.1080/00220389808422553
- Hillenbrand, E., & Miruka, M. (2019). Gender and social norms in agriculture: A review. In Resakss Annual Trends and Outlook Report 2019. Publisher: International Food Policy Research Institute (IFPRI).
- Huffman, W., & Orazem, P. (2007). The Role of Agriculture and Human Capital in Economic Growth: Farmers, Schooling, and Health. Research Gate. Link
- Kristjanson, P., Bryan, E., Bernier, Q., Twyman, J., Meinzen-Dick, J., Kieran, C., Ringler, C., Jost, C., & Doss, C. (2017). Addressing gender in agricultural research for development in the face of a changing climate: Where are we

- and where should we be going? International Journal of Agricultural Sustainability, 15(5), 1-17. Published online: June 11, 2017.
- Singh, S., Thakur, G., & Gupta, C. (2013). A Case Study on Empowerment of Rural Women through Micro Entrepreneurship Development. IOSR Journal of Business and Management (IOSR-JBM), 9(6), 123-126. Link
- Szalay, J. (2017). Live Science Contributor. Bananas: Health Benefits, Risks & Nutrition. Retrieved from https://www.livescience.com/45005-banana-nutrition-facts.html
- Yenesew, E., & Daniel Masresha, D. (2019). Impact of Livelihood Diversification on Rural Household Food Security: Evidence from Goncha-Siso-Enesie District of Amhara Regional State, Ethiopia. International Journal of Agricultural Economics, 4(6), 288-297. Received: Aug. 14, 2019; Accepted: Dec. 2, 2019; Published: Dec. 11, 2019.
- Zepeda, L. (2020). Agricultural Investment, Production Capacity, and Productivity. Retrieved from http://www.fao.org/3/x9447e03.htm#d (12/29/2020).

Notes on contributors

Adelfa Cabigas Silor is an Education Professor at Mindanao State University-Iligan Institute of Technology, where she earned a baccalaureate in Bachelor of Arts in English (Linguistics) in 1987. She is a Doctor of Education in Educational Management at The Cebu Normal University, Cebu City. Her main fields of research interest are education, language, Gender and Development, Agriculture, and Fisheries for Food Security.

Amelia T. Buan is a Mathematics education professor and a research and evaluation expert at Mindanao State University-Iligan Institute of Technology. In 2015, she was chosen as one of the 40 Intel Education Visionaries for her insight, passion, and proven experience as an agent of change in education. She is one of the trainers of the Department of Science and Technology-Science Education Institute's Project STAR (Science Teacher Academy for the Regions) training teachers on the effective use of various Mathematics teaching approaches.

Anra A. Del Rosario is an alumna of MSU-Main, Marawi City, and has been a faculty member of MSU-IIT-Integrated Rural Development Academy for 32 years. She is a pro-women advocate and believes in the power of women in terms of earning for, learning about, and teaching the art of living.

Joe Elson C. Suarez is a Technology & Livelihood Education Teacher specializing in Agro-Fishery Arts at MSU-IIT-Integrated Rural Development Academy. He finished his baccalaureate degree at MSU-Naawan with a degree of Bachelor of Science in Fisheries major in Aquaculture in 1991. His main field of interest and specialization includes coastal and upland resource management, sustainable Agro-Fishery Management and Gender Development. He also earned his Master of Arts in Education, major in Educational Management at Southern Mindanao College in 2019.