

Enabling Women in Community-based Livelihood Intervention for Sustainable Community Development in Maramag, Bukidnon, Philippines



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フィリピンでは女性が農業部門の労働力の39%を占めるが、伝統的に補助的な役割に限られていた。しかし地域での技術教育・訓練を通じて女性をエンパワーすれば地域社会の活性化につながる事が明らかになった。

Abstract

Women have long been the mainstay of communities and are heavily involved in community-based development initiatives. Being considered as the unsung heroes of community action, the role of women in community development has become increasingly important. This study aims to examine the outcomes of Science and Technology Community-based for Inclusive Development (STC4iD) Program in creating an important space for women to exercise their voice in determining their access and control of community resources and enhancing their decision-making power in the household and community. Utilizing surveys, key informant interviews, focus group discussions and secondary data reviews as data gathering methods, the main objective is to assess the effectiveness of the program demonstrated in terms of women participation and empowerment, technical skills development, and enrichment of community livelihood. Results showed that participants had favorable views regarding the appropriateness of the interventions vis-à-vis their needs and the general effectiveness of the project. Factors both intrinsic and extrinsic to individuals, households and communities affect women participation in community development. The implementation of different gender sensitive social development programs and continuous community education and training are effective strategies to encourage and sustain women participation. Lessons from Maramag, Bukidnon can be useful in developing enabling environment for women's economic environment in Geographically, Economically and Socially Disadvantaged (GESDA) communities.

Keywords

women participation, community development, community-based livelihood, GESDA communities, STC4iD Program

Introduction

Agriculture is a highly visible and important economic activity in many parts of the world. According to the World Bank¹ it “can help reduce poverty, raise incomes, and improve food security for 80% of the world's poor.” Although it has been considered men's work, the number of females participating in the agricultural sector has been increasing. In fact, half of the world's food is produced by the labor participation of women in agriculture both globally and in developing countries.²

In the Philippines, women comprise 39% of the

agricultural labor force.³ They are involved in various activities, such as pulling seedlings for transplanting, weeding the rice paddies, harvesting crops, managing and storing seeds for the next crop, threshing, growing other crops and raising livestock.⁴ In addition, they take on key roles as agricultural managers or decision-makers⁵ and they help secure farm production capital and augment household income.⁶

Despite all this, women farmers are outnumbered by men and their contributions remain largely invisible. Agricultural programs in the Philippines have tended to view them as merely farmers' wives and not farmers in

their own right.⁵ Coupled with their work-related and burdensome domestic responsibilities, women have a lack of access to and control over agricultural resources. They also lack access to credit and information.⁶⁻⁷ All those pose as critical challenges that women face as part of the agricultural sector.⁶⁻⁷

The Philippine government recognizes that closing the gender gap in agriculture could potentially raise food production and achieve food security.⁸ Specific measures and initiatives have been undertaken to prioritize women as recipients of government services and transfers. These efforts include the establishment of women's groups in rural labor markets and the implementation of gender mainstreaming and the protection of women's rights at the grassroots level.

In particular, the Department of Science and Technology (DOST), through the Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (PCAARRD) recently funded the S&T Community-based for Inclusive Development (STC4iD) program which was implemented over the course of three years across five sites. Among these sites was Barangay Kiharong in Maramag, Bukidnon where the program is locally known as the Community-based Livelihood Improvement for Bukidnon (Project CLImB).

The STC4iD program intended to become a demonstration of a technology transfer modality in the identified Geographically, Economically and/or Socially Disadvantaged (GESDA) communities and social groups in the agriculture, aquatic and natural resources or AANR sector. This is not just to cater to the poor, but to prioritize disadvantaged communities and social groups across the nation. Project CLImB primarily aimed to uplift the social and economic well-being of rural women in Bukidnon and sought to enhance the efficiency of the farm by increasing production and improving the standard of living of the farm family.

With this, it is necessary to assess the effectiveness of the community-based livelihood intervention in creating an important space to exercise their voice in determining their access to and control of community resources and enhancing the decision-making power among the members of the Kiharong Women's

Association (KWA), especially during the pandemic. This paper sought to describe the socioeconomic characteristics of members, their levels of participation and empowerment, the technical skills they acquired, and the overall improvement in community well-being. It also examined the challenges, learnings and opportunities that can be drawn to initiate sharing of lessons and develop future linkages.

Objectives

The general objective of this paper is to examine the outcomes of Science and Technology Community-based for Inclusive Development (STC4iD) Program in creating an important space for women to exercise their voice in determining their access to and control of community resources and in enhancing their decision-making power in the household and community. Specifically, this paper aimed to:

1. Assess the effectiveness of the program demonstrated in terms of women's participation and empowerment, technical skills development and enrichment of community livelihood;
2. Discover challenges, learnings and opportunities that can be drawn to initiate sharing of lessons, draw synergies and develop future linkages; and;
3. Recommend key element features for a better and inclusive programs/ projects in GESDA communities.

Methodology

Research Site

The study was conducted in Barangay Kiharong in the municipality of Maramag in Bukidnon. The province of Bukidnon in Mindanao was identified as the sixth impoverished province in the Philippines, having a poverty incidence of 58.7% in 2015.⁹ Additionally, fewer than 30% of its households had incomes below the average food threshold level.

It was identified as one of the locales of the STC4iD program given that the barangay is predominantly a farming community and agriculture is characterized by low productivity and massive agricultural land conversion. Being an upland community, Barangay Kiharong

has a fragile but critical environment hosting the tributaries of the Upper Pulangui River which provides irrigation to the lowlands of Southern Bukidnon. Most members of the community had been involved in local organizations but needed to be trained on governance and financial management. Furthermore, the local government had aimed to increase productivity and generate investment and employment opportunities for its people.

Data Collection Methods and Sources

In addition to the desk appraisal of project documents, three other methods were employed: focus group discussion, key informant interview and a survey of the members of the community-based organization.

The survey was administered by hired enumerators under the supervision of the project team. A total of 29 KWA participated in the survey. The survey sought to determine the general sense of women's perception about the program. Program implementers and subprogram benefits and participants were selected through purposive sampling. The primary criterion in choosing was their membership of the organization.

The survey questionnaire was divided into several parts: demographic profile, food security, social capital, technical skills developed, program evaluation, and recommendations. While the questionnaire was translated into Tagalog, it was also further translated into the vernacular of the site by the local enumerator who administered the questionnaire under the supervision of the project team.

To complement the survey, FGDs were conducted with selected members of the organization. It sought participants' views about the strengths, weaknesses, opportunities, and threats in the implementation of the STC4iD program. A total of nine members participated in the activity. Guides for the community FGDs were prepared.

Key informant interviews with four members of the CMU project team were also held. These were employed to get in-depth information and data from individuals who had significant contributions to the overall implementation of the project.

Data Analysis

After data validation, the survey data were subjected to descriptive statistical techniques. These included frequency tables and averages. Meanwhile, emerging themes were identified in the responses shared by the participants during the focus group discussions.

Evaluation Framework

This study is part of a larger assessment study covering all five sites of the STC4iD program. The evaluation's objective is to examine the extent to which the STC4iD program has contributed to technology transfer in GESDA communities. Specifically, the assessment focuses on the three operational approaches of the program-Social Technologies for Institution Building (STIB), Sustainable Livelihood through Community Enterprise Development (SLED) and Enabling Mechanisms Ensuring Sustainability (EMES).

Figure 1 summarizes the framework for the assessment of the STC4iD program and shows that with the three-year program implementation, recommendations can be identified for better and inclusive programs in GESDA communities.

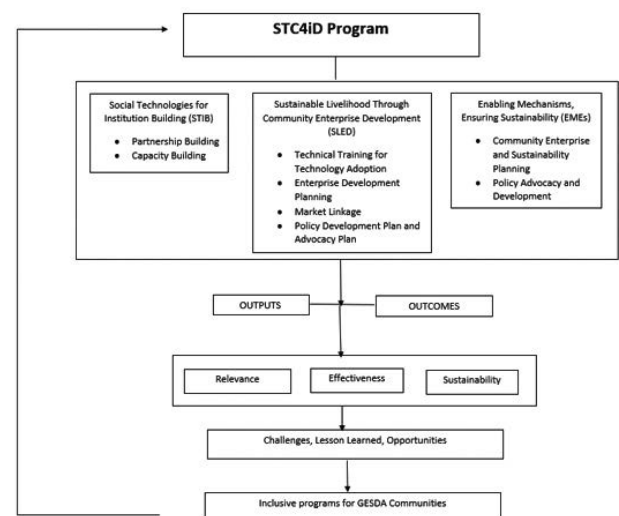


Figure 1. Project framework for the assessment of the STC4iD program

Results and Discussion

Socio-demographic Profile

Sex, civil status, and position in the household: All of the 29 participants from Bukidnon were female, and among them only two were household heads. A large percentage (79.3%) were married, implying that the household heads were mainly their husbands.

Education: More than one-fourth of the participants had attended high school (27.6%), with some having graduated from high school (20.7%). Five of them attended college, and one graduated from college.

Occupation: About one-third of the participants (34.5%) had no occupation, while the rest worked as farmers, laborers, service workers, and barangay workers. Less than one-fourth (20.7%) indicated that they had other jobs not listed in the questionnaire.

Average HH size, average number of HH members earning income and estimated monthly income: The average household size of the participants was five people, with about two of the total number of household members earning an income. The average monthly income of the participants was PhP 9,241.

Estimated daily food expenses: The estimated daily food expenses of the participants at the time of the survey was PhP 247.24

Number of years residing in the community: Participants' average number of years in the community was 27 years.

Program Outputs and Outcomes

Through the partnership of CMU and Barangay Kiharong, substantial outputs that correspond to the operational approaches were produced that were adopted by the STC4iD Program. With the intent to capacitate the partner SUCs on Social Technologies for Institution Building (STIB), the project team established, in year 1, a number of MOAs and forged linkages with organized groups that led to the identification of community livelihood programs and the adoption of a communication plan that was specifically designed for the STC4iD Program. A community linkage was forged with Barangay Kiharong, Maramag, Bukidnon, where various livelihood activities were conducted such as organic

vegetable farming, mushroom production, goat raising, vermicomposting, and adoption of the Natural Farming Technology System (NFTS).

Year 2, which focused on the stakeholders' capacity building on Sustainable Livelihood through Community Enterprise Development (SLED), witnessed the establishment of a Vegetable Demo Farm in Kiharong, Maramag, Bukidnon, the formulation of an enterprise development plan, the development of capacity building modules, and the distribution of IEC materials to various stakeholders and target participants. Year 3 centered on ensuring the sustainability of program gains and benefits through the formulation of the Community Enterprise Sustainability Plan and the passing of a local resolution or ordinance.

Participation

A large majority of participants exhibited active participation in various activities. A very high participation level was observed during field visits and in the identification of members' roles in project activities (both at 96.6% of participants). It is interesting to note the display of a very high participation level in the development of project objectives (89.7%), attendance in regular meetings (86.25%), and in the determination of interventions based on their needs (86.2%). Such participation levels can allow the creation of sustainable structures, processes, and mechanisms over which local communities have an increased degree of control and from which they have a measurable impact on public and social policies affecting these communities.¹⁰

It is also important to note that participation is a means to achieving improved development results rather than an objective. The overall success of a community project is dependent on the independent variables of perception, willingness, understanding and sense of ownership.

Activities Attended

Results showed that a very high level of participation was also expressed by the majority (96.6%), when it comes to participation in capacity building activities primarily on Leadership Training, Visioning and Strategic Planning, Basic Financial Literacy and

Recordkeeping, and Organizational Management and Development (Table 1). Similar results were found in their participation in a number of technical training workshops that included vermicomposting, organic vegetable production, mushroom production, and Natural Farming Technology System. The same very high participation level was observed in their participation in identifying their roles in the organization and cross visits.

Table 1. KWA participants' level of participation in various activities

Activity	Percentage	
	High (4)	Very High (5)
Regular meetings	13.8	86.2
Development of objectives	10.3	89.7
Determining interventions	13.8	86.2
Identifying members roles	3.4	96.6
Field Visits/ Cross Visits	3.4	96.6
Capacity building training on:		
· Leadership	3.4	96.6
· Community Profiling	17.2	82.8
· Community Needs Assessment	6.9	93.1
· Visioning and Strategic Planning	3.4	96.6
· Basic Financial Literacy and Recordkeeping	3.4	96.6
· Organizational Management and Development	3.4	96.6
Technical Training on:		
· Vermicomposting	3.4	96.6
· Organic Vegetable Production: Bio-intensive gardening (BIG) approach	3.4	96.6
· Vertical Gardening and Seminar on Understanding Markets and Marketing	3.4	93.1
· Mushroom Production	3.4	96.6
· Goat Raising	13.8	86.2
· Natural Farming Technology System	3.4	96.6
Monitoring	16.7	83.3
Evaluation	16.7	83.3

Trainings Attended

Of the training workshops that they attended, those that had the most impact and that were found to be most useful by most participants was the bio-intensive gardening approach used in organic vegetable production and the training on farming techniques. Other capacity

building activities they found useful were the training-workshops on Natural Farming Technology System and vertical gardening. Vermicomposting and goat production were cited by only one beneficiary. The rest of the training workshops attended were not mentioned.

Technical Skills Developed

Changes in Farming Techniques

The participants were asked of the changes in their farming techniques because of the program. The predominant response by 27 of 29 (93.10%) of the participants was the use of organic fertilizer and other techniques in organic farming. Others mentioned that they learned new techniques in planting vegetables in the garden and vertical gardening. One was quoted as saying "I am now motivated to plant vegetables in our backyard through applying what I have learned."

Enrichment of Community Livelihood

Majority (93.3%) of the participants, likewise, exhibited a very high level of participation in the specified targets. Specifically, these are in the aspects of network building, partnerships with other institutions, and information exchange with people outside the program and organization. These aspects of social capital are seen as instrumental in establishing the wellbeing of a community.¹¹

Table 2. KWA participants' achievement in community livelihood

Target	Percentage	
	High -4	Very High -5
Network building	6.9	93.1
Partnerships with other institutions	6.9	93.1
Information exchange with people outside the program and organization	6.9	93.1

Challenges, Learnings and Opportunities

Challenges and Learnings

Some challenges both in terms of their membership in the organization and in terms of the organization as a whole were identified by the participants. While the overwhelming majority did not indicate any problem, a few (6.9%) mentioned that conflicting schedules was a

common problem encountered among the members. They suggested that because of this, members should be proactive in asking for information about the activities in order to be updated with the developments in these activities.

At the level of the organization, some problems cited were lack of cooperation (13.79%) and absenteeism (3.4%). To address these problems, members suggested holding regular meetings with open forums where members could be given the opportunity to speak up and share their ideas. One member suggested asking the members who were absent to be in-charge and serve as the facilitator in the next meeting.

Opportunities

The participants perceived that the program made the biggest contribution on their social and economic wellbeing as well as on the technical knowledge they learned.

As farmers, the benefitted from the additional farm inputs and tools. Also, the program specifically contributed to their increased knowledge of farming techniques and technologies which they were able to apply in their own farm and backyard garden. Their gardens, in turn, served as a free source of food for the family, which led to some savings for the family and was an additional source of income.

As members of the organization, the participants found that the program was instrumental in establishing social connections, particularly in creating strong bonds of friendship with other farmers and fellow members of the organizations. These connections motivated the members to become active and cooperative members of the organizations. Participants also noted that as members of the organization, they were given opportunities to attend training-workshops and field trips, providing greater chances for learning and improving themselves and their practice. They also acknowledged that their membership in the organization allowed them to receive free farm inputs as well as technologies.

Similar positive contributions of the program were cited in their role as members of the community, which was a combination of improvements in their financial capital, human capital, and social capital. The program

contributed as an additional source of living providing a “big help in income” which “provides for the family’s daily needs.” The knowledge gained and shared among the participants contributed a lot through gaining new ideas from the field visits and other capacity building activities. Social capital was enhanced with new friendships and networks established among the members of the organization. In the process, these positive contributions led to stronger ties among them resulting in more compliant and cooperative members who actively participate in various activities.

Conclusion

The KWA women were middle-aged mothers from large households with an income below the poverty and food threshold levels. Despite the pandemic, the STC4iD project, as applied in Kiharong, implemented a livelihood intervention which provided food and income, improved the technical skills of the women on farming, and made them more trusting, cohesive, cooperative, and informed. Aside from the enhanced social capital, the project helped increase the effort of the KWA members to generate income for their households.

The STC4iD project is an example of combining subsistence and income-generating activities in varied and typically shifting patterns to meet basic needs. The assessment of the STC4iD project has shown improved existing community capitals particularly human capital, financial capital and social capital in the which contribute to its sustainability. These accomplishments were a result of but not limited to a responsive community needs assessment, appropriate S&T interventions, public and private partnerships, effective program management, and the commitment of the members of community-based organizations as beneficiaries.

Women in the agriculture sector need a champion to look after their concerns and close the inequality gap. Countries that make opportunities equal for all, regardless of gender, age or religion, give more people the chance to improve their lives. As primarily agricultural country, closing the gender gap in the agriculture sector can reap significant dividends.

Recommendations

The study puts forward concrete steps that would require actions and policy decisions for better and more inclusive programs and projects for rural women in the GESDA communities.

On enhancing community-based livelihood interventions

Continuous consultations, community education, knowledge management, capacity and empowering activities need to be sustained so that rural women become more engaged in the community. Community-based livelihoods have the potential to provide a rich training ground for women to develop and practice their leadership skills.

On Project Management

Rural women sub-committees within the community must be established and strengthened to develop concrete and specific directions for the conceptualization, implementation and coordination of community-based livelihoods. This would also help to enhance the collaboration among women through inter-community partnerships for the proper implementation of development strategies.

On Relationships among the Members

The relationships of the members of the organization must be improved. There was a collective view that “unity among the members is very crucial for the success of the program.” At the level of the members, there was a clamor to address the perennial problem of misunderstanding among the members. As earlier presented, low participation in some organized activities was also observed. Effective leadership could be one way to address this. Team building activities could also be conducted in a regular manner.

Values formation can be considered to be a part of the intervention, specifically as part of capacity building activities. This would aim to improve relationships among the CBO members and with the project team, thereby fostering project ownership and increasing the likelihood of its sustainability.

On Project Scope

The implementation of the STC4iD program must be expanded to other areas. The STC4iD program has laid an important foundation in the community. Not only

were the people organized and capacitated; they also received important funding to carry out introduced interventions. A follow-up project should make sure these undertakings continue and are sustained in partnership with broader government and non-government agencies for more diversified and holistic assistance.

Acknowledgment

The authors wish to thank DOST-PCAARRD for the financial and technical support in the implementation of this assessment project.

References:

- 1) World Bank. (2023). The Challenges of Food Insecurity: Ensuring people have enough today... and tomorrow. https://www.worldbank.org/en/who-we-are/news/campaigns/2023/food-security-anthem-story?cid=ECR_LI_Worldbank_EN_EXT_profilesubscribe.
- 2) Doss, C. (2014). If women hold up half the sky, how much of the world's food do they produce? In: Quisimbing A.R., Menzen-Dick, R., Raney, T.L., Croppenstedt, A., Behrman, J.A., Peterman, A. (Eds.), *Gender in Agriculture: Closing the Knowledge Gap*, Food and Agriculture Organization of the United Nations. DOI 10.1007/978-94-017-8616-4_4. Pp 69-88. Springer, Netherland.
- 3) Philippine Statistics Authority. (2023). Philippine Statistical Yearbook. 2023. Diliman, Quezon City.
- 4) CGIAR Gender Program. (2016). Women in Rice Farming Systems: From Field to the Lab and Back. Canada. <https://cgspace.cgiar.org/server/api/core/bitstreams/e6ffe5cc-5b6b-4168-a4ed-a54aa3a163ed/content>.
- 5) Lumbo, S.G., De Claro, M.Y., and Casanova, U.S. (2010). Management Practices and Needs and Women Farmers in Occidental Mindoro, Philippines: Their Implications to Rural Living. Paper Presented at the 4th Asian Rural Sociology Association (ARSA) International Conference. Pp113-122. Legazpi City, Philippines. In: Tapia, M., Pulhin, J.M., Nelson, G.M., Predo, C.D., Peria, A., Peras, R.J., Lasco, R.D., Pulhin, F.B., and Evangleista, R.P. (2018). Involvement of Women in Farm Decision-making and Adaptive Capacity to Extreme Events of Farming Households in Ligao City, Albay, Philippines. *Journal of Environmental Science and Management*. 21-2: 70-81 (December 2018). ISSN 0119-1144.
- 6) Koirala, K., Mishra, A., and Monanty, S. (2015). The Role of Gender in Agricultural Productivity in the Philippines: The Average Treatment Effect. Paper Presented at the Southern Agricultural Economics Association. 2015 Annual Meeting. Atlanta, Georgia. January 31- February 3. 2015.
- 7) Fletschner, D., & Kenney, L., (2014). Rural Women's Access to Financial Services: Credit, Savings and Insurance In: In: Quisimbing A.R., Menzen-Dick, R., Raney, T.L., Croppenstedt, A., Behrman, J.A., Peterman, A. (Eds.), *Gender in Agriculture: Closing the Knowledge Gap*, DOI 10.1007/978-94-017-8616-4_4.

Food and Agriculture Organization of the United Nations.
Springer, Netherland.

- 8) Dacuycuy, C. (2018). Crafting Policies and Programs for Women in the Agriculture Sector. Policy Notes Philippine Institute for Development Studies. 2018-(08). ISSN 2508-0865. <https://pidswebs.pids.gov.ph/CDN/PUBLICATIONS/pidspn1808.pdf>
- 9) Philippine Statistics Authority. (2015). 2015 Full Year Poverty Statistics. <https://psa.gov.ph/content/poverty-incidence-among-filipinos-registered-216-2015-psa>
- 10) Craig, G., & Mayo, M. (1995). Community participation and empowerment: The human face of structural adjustment or tools for democratic transformation? In M. Craig & G. Mayo (Eds.), Community Empowerment: A Reader in Participation and Development (pp. 1-11). Zed Books. [https://www.google.com.ph/books/edition/Community_Empowerment/oRIL6kHLVgoC?hl=en&gbpv=1&dq=Craig,+M.,+%26+Mayo,+G.+\(2022\).+Community+participation+and+empowerment:+The+human+face+of+structural+adjustment+or+tools+for+democratic+transformation&printsec=frontcover](https://www.google.com.ph/books/edition/Community_Empowerment/oRIL6kHLVgoC?hl=en&gbpv=1&dq=Craig,+M.,+%26+Mayo,+G.+(2022).+Community+participation+and+empowerment:+The+human+face+of+structural+adjustment+or+tools+for+democratic+transformation&printsec=frontcover)
- 11) Chopra, K. (2002). Social Capital and Development Processes: Role of Formal and Informal Institutions. *Economic and Political Weekly*, 37(28), 2911–2916. <http://www.jstor.org/stable/4412361>