ISSN: 2651-6551

INFORMING POLICY AND PRACTICE

Policy Brief Series No. 2024-10

Enhancing Gender Responsiveness and Growth of the Strawberry Processing Sector

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HIGHLIGHTS

- **Gender disparities exist within the strawberry industry in terms of participation, resource allocation, and decision-making. Women, who play crucial roles in unpaid care work and household responsibilities, face challenges in fully engaging in processing activities.**
- **Identified challenges in strawberry processing include insufficient assistance, secondary value perception, product quality, and marketing. While individual processors were found resilient, there is potential for collaboration within the strawberry producers' organization to address the challenges and enhance the processing sector.**
- **Targeted interventions and policy measures to address gender disparities and promote inclusivity within the strawberry industry include: supporting women in accessing resources and training, enhancing market linkages, improving product quality and packaging, and strengthening the role of farmer associations.**

INTRODUCTION

The strawberry industry is considered the main source of livelihood for more than 600 farmers and processors, as well as various types of small businesses in La Trinidad, Benguet. The industry thrives due to its year-round crop production and the presence of local tourists and local markets.

Prior to the COVID-19 pandemic, the industry showed promising production volume and areas planted, contributing to agricultural diversification and the local economy. However, the pandemic and subsequent lockdowns severely impacted the industry, causing a loss in revenues and disrupting the supply chain. The absence of tourists, who are major consumers of strawberries, led to spoilage and reduced market demand. This situation highlighted the vulnerability of the strawberry enterprise to external shocks and the need to support local capacity for self-sufficiency in food production.

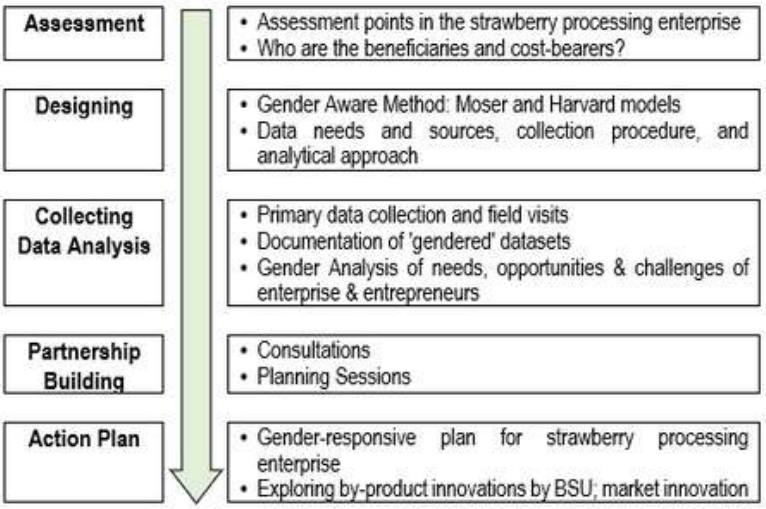
Furthermore, gender roles are crucial in strawberry production and disaster response. Women farmers are heavily involved in crop maintenance and face additional labor burdens due to climate change-related challenges, such as flooding.

However, their specific needs and vulnerabilities are often overlooked in disaster planning and relief efforts. Despite this, women have shown resilience and leadership in responding to disasters and integrating science and technology into their practices.

In light of the changing landscape, it is essential to address the gaps and issues in the strawberry enterprise. This policy paper is to inform various stakeholders of the gender dynamics in the strawberry industry and to provide recommendations that should inform policies or courses of action to address key areas in the strawberry industry specifically the processing enterprise. The goal is to strengthen the resilience of the strawberry enterprise, foster gender-inclusive approaches, and ensure the long-term sustainability and well-being of the farmers involved in strawberry production.

METHODOLOGY

The study is mainly qualitative with time use design that captures the different roles played by all genders including the access and control over resources. Qualitative and descriptive statistics were utilized to understand gender differentials. It involved 30 male and 32 female participants from the BSU Strawberry field and selected sites in barangay Puguis in La Trinidad, and nearby areas. Purposive sampling was used to select key players for data collection. The analysis involved examining gender roles, resource access/control, and the effects of the pandemic on the strawberry industry. The data analysis followed frameworks provided by Moser and the Harvard Analytical frameworks, incorporating thematic analysis and a participatory process to derive meaningful insights.



FINDINGS

Profile of Respondents

The majority of participants were between the ages of 31 and 60, with 60% of them married and 12% single. They were engaged in various occupations related to strawberry farming and processing, with farming being the most common occupation for both males and females (Figure 1). The majority of participants estimated their monthly income between PHP 10,001 and 20,000.

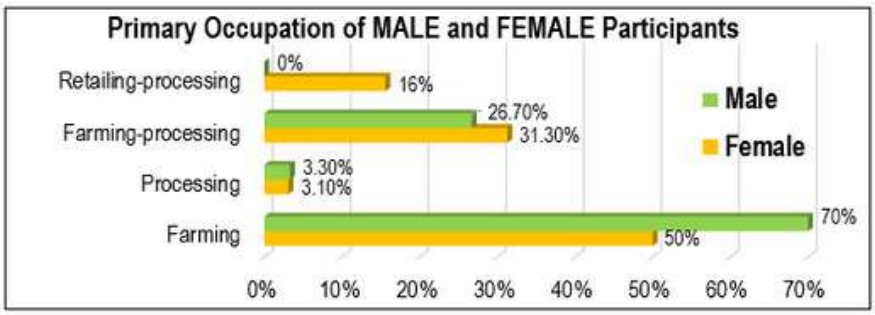


Figure 1. The primary occupation of male and female participants

Strawberry Processing in La Trinidad, Benguet

The practice of processing of unsold or second-class strawberries remains as another source of income for many, most especially to those who grow strawberries. The strawberry processing enterprise covered in this study focused mainly on the experiences of the household processors. Out of the 62 research participants, 25 are involved in strawberry processing. Most products processed are strawberry preserves, jams, and wines. New innovation with the use of fresh strawberries that are present in the market are strawberry candy, strawberry alamang, and strawberry baked products, while strawberry filled mochi will still be experimented by young farmer intrapreneurs. Figure 2 presents the different activities involved in strawberry processing.

Table 1. Strawberry by-product Development in the Household Level

Strawberry by-products	*Status*
Strawberry jam/preserve	Traditionally sold strawberry by-products
Strawberry wine	Existing strawberry by-products
Strawberry alamang	Being introduced/marketed at the stalls
Strawberry ice cream	Being 'experimented' at home
Strawberry candy	Being introduced/marketed at the stalls
Strawberry baked products	Being introduced/marketed at the stalls
Strawberry filled mochi	For experimentation/ trial

Strawberry processing presents both opportunities and challenges for farmers, particularly in terms of diversifying their income streams. Household processors primarily utilize second-class strawberries for processing, allowing them to utilize unsold or lower-grade fruits. However, sourcing an adequate supply of strawberries can be a challenge, especially during peak seasons when local supply may not be sufficient. Processors may need to source strawberries from outside La Trinidad, sometimes from other municipalities, to meet the demand. The Sweet Charlie is the most commonly used variety for processing, while other varieties are considered less suitable due to color and size considerations. Processing activities are concentrated from December to April, with peak season from February to April. The prices of processed strawberry products have increased over time, influenced by factors such as inflation, production costs, and market demand (Figure 2). Overall, strawberry processing provides opportunities for income generation, but farmers and processors need to navigate various challenges to ensure a stable supply and meet market demands.

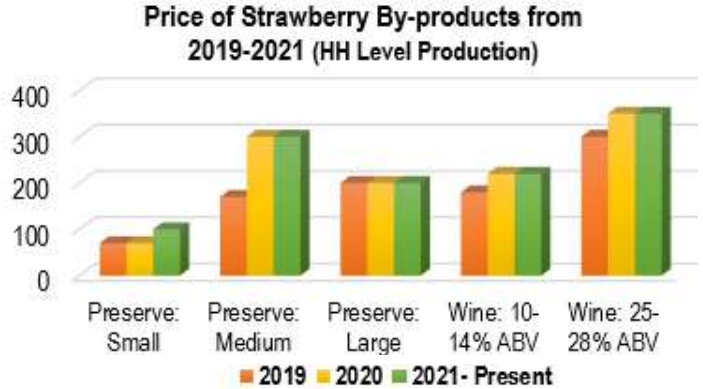


Figure 2. Price of strawberry by-products from 2019-2021 (Household Level Production)

Gender Roles in Strawberry Processing

Women in strawberry farm households handle the processing, taking on around 75% of the processing activities, including marketing and distribution. Men also participate in processing activities, but their involvement is limited compared to women, with tasks such as cleaning, cooking, and packaging being shared. Men contribute 25% and do not perform any tasks solely themselves.

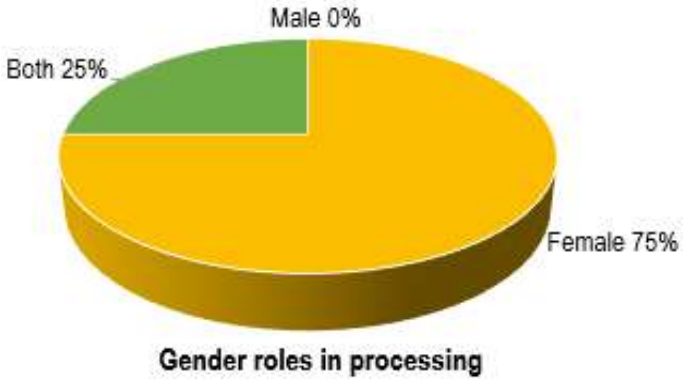


Figure 3. Gender Roles in strawberry processing

These gender roles in strawberry processing present challenges, particularly for women who face time poverty as they juggle processing with other responsibilities such as gardening, household chores, and caring roles. The time constraints and multiple unpaid and care work responsibilities experienced by women limit their ability to engage in activities like strawberry by-products innovation. This time poverty is further exacerbated by the perishability of strawberries, resulting in discarded or given away fruits when there is no time for processing. Overall, the gender dynamics in strawberry processing highlight the challenges faced by women in balancing their various roles and the need for dedicated time and support to fully participate in processing activities.

Time Use of Women and Men

Women often balance productive roles with household and care responsibilities, while men focus more on productive activities. Leisure among men is still present while performing their tasks within the day, while for women, leisure time are often performed simultaneously with other care or reproductive roles.

The average time spent on the paid activities of the research participants is shown in table below. The time spent by male research participants in farming has an average of 12 hours and 2 minutes. Their average time start is 6:02 am while their time end is 6:04 pm. While for female research participants, the average time spent is 10 hours and 27 minutes with a time start of 6:42 am and a time end of 5:11 pm. Females have to perform household activities in the morning and in the evening resulting in less time spent on the farm. Females performing household chores allow the males to extend their time in the farm until 10 o'clock in the evening or to start by 3 o'clock in the morning in cases or seasons like harvesting.

Table 2. Number of Hours Spent on Paid Work both Women and Men

		Time Start	*Time End*	*Time Spent*
Farming	Male	6:02 AM	6:04 PM	12 hrs. and 2 mins
	Female	6:42 AM	5:11 PM	10 hrs. and 27 mins
	Overall Average	6:22 AM	5:37 PM	11 hrs. and 14 mins
Processing	Male	6:42 PM	9:30 PM	2 hrs. and 42 mins
	Female	5:11 PM	8:33 PM	3 hrs. and 11 mins
	Overall Average	5:56 PM	9:01 PM	2 hrs. and 57 mins
Retailing	Male			
	Female	7:46 AM	5:46 PM	10 hrs.
	Overall Average	7:46 AM	5:46 PM	10 hrs.

For processing, the total number of research participants, 14,52% accounts for males involved in processing while 27.45% accounts for women involved in processing. Women also spend more time in the production of strawberry wine and preserve/jam with their time spent having an average of 3 hours and 11 minutes. While average time spent of men is 2 hours and 42 minutes. In addition, most processing activities are done in the evening between 5:56 pm to 9:01 pm when farming activities are done and when activities in the evening are performed. For retailing, the average time spent of the research participants are 10 hours, starting from 7:46 am to 5:46 pm or when there are tourists and visitors still present in the area.

Potential Skills

Research participants have acquired entrepreneurial knowledge and skills through government institutions, but some have faced challenges in sustaining them. There is a lack of formal training of strawberry processing, food packaging, labeling, and promotion, and most participants rely on traditional or household materials for production. A small percentage of participants have a registration for the quality of their products.

Challenges and Opportunities

Challenges in processing include insufficient assistance in accessing quality and affordable resources like bottles, secondary value perception of home-based processing, ensuring product quality that include mold development, lack of standard in processing and product packaging and labeling and marketing, and poor ad advertisement. Among the 25 processors, only 12% have attended seminars and/or training on food packaging and labeling, and only 16% have BFAD, FDA and/or DTI registration.

Opportunities in processing include individual processors sustaining processed strawberry products, the organization of strawberry producers, and addressing challenges through improvements in bottling, product quality, ingredients, storage conditions, mold prevention, and marketing strategies. The presence of a farmer's association can also enhance negotiation potential and create collective opportunities for producers and processors.

Changes in the industry before, during, and after the COVID-19 pandemic highlight the resilience and adaptability of the strawberry sector, with implications for market demand, marketing strategies, cropping patterns, and farm production arrangements. The presence of disposers, online selling, crop diversification, and exploration of new production areas signify opportunities for growth and sustainability in the industry.

Enhancing Gender Responsiveness and Growth of the Strawberry Processing Sector

CALL TO ACTION

- **Address time poverty and workload sharing:** Recognize and address time constraints faced by women involved in strawberry processing.
- **Strengthen LGU-DOST/DTI-ACADEME collaboration in supporting business/enterprise development for strawberry processed products:**
  - Academe to work with processors for technology commercialization;
  - Promote the use of modern technologies and machinery that can reduce labor-intensive processing tasks; and
  - Maximize the opportunity available in government Shared Service Facilities.
- **Strengthen monitoring systems to ensure quality, food-safe and proper labeling of processed products:**
  - LGUs and DTI may consider systematizing regulatory requirements; include farmer-processors in the mandatory training for enterprises—GMP, food safety, financial literacy, etc.; and
  - Establish guidelines and revive the OTOP inspection and labeling system.
- **Support innovation in strawberry value-adding:**
  - Support the development of locally sourced and innovative strawberry by-products. This can be done through research and development initiatives, sustaining entrepreneur support, and creating market linkages for these products.
- **Enhance productivity and value addition:**
  - Support initiatives that enhance productivity and value addition in strawberry processing. This can involve providing training and technical assistance to improve processing techniques, product quality, packaging, and labeling;
  - Government rationalizing rental rates of shared service facilities; and
  - Encouraging innovation and product diversification to expand market opportunities by providing support to time and energy saving technologies
- **Sustain the promotion of entrepreneurship, market development and facilitate linkaging:**
  - Facilitate entrepreneurship development among women involved in strawberry processing; and
  - Continue providing access to market information, networks, and opportunities for product promotion and marketing, such as trade shows, exhibitions, and trade fairs.
- **Address structural barriers:**
  - Recognize strawberry processing, which is a women-dominated sector, as an equally important component of the industry and not just secondary to production. The notion of strawberry processing as secondary is very shaping in terms of the support the enterprise is getting
  - Investments in the processing enterprise must get equal support.
- **Promote consumer support for local processed products through demand-side campaign programs:** Develop/support campaigns for the demand side to increase support for local products and local farmers.

MAJOR REFERENCES

Batani, R.S., Launio, CC., Pablo, JP., Somyden, JA., Nang-is, ED., Ramos, SD., Chomawat, JM. 2023. Enhancing Gender Responsiveness and Growth of Strawberry Processing Enterprise.

ABOUT THE MATERIAL

Informing Policy and Practice is published quarterly by the Institute of Social Research and Development and R & E Publications Office of Benguet State University. It synthesizes findings from research and development activities, or presents results of quick survey and opinion poll on social, economic, and policy issues and concerns affecting the Cordillera region. It also distills the key messages and provides recommendations for the information and consideration of relevant stakeholders and policymakers.

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Published by the Institute of Social Research and Development, Benguet State University | Distributed by the Research and Extension Publication Office, Benguet State University