



## Strengthening the Support to Vegetable Growers of Santo Nino, Cagayan, Philippines to Boost Production



S&T in Agriculture

**Michael M. Uy<sup>\*1</sup>, Josie Y. Bas-ong<sup>2</sup> and Claudine S. Campado<sup>3</sup>**

<sup>1</sup>College of Agriculture, Cagayan State University, Piat Campus, Piat, Philippines

<sup>2</sup>University Director for Extension, Cagayan State University, Andrews Campus, Tuguegarao City, Philippines

<sup>3</sup>Project Staff, Cagayan State University, Andrews Campus, Tuguegarao City, Philippines

Corresponding Author: [michaeluy2021@csu.edu.ph](mailto:michaeluy2021@csu.edu.ph)

### Key Findings and Policy Implications

- Majority of farmers belong to the male representation, middle-aged group adults (41-60) with a mean age of 51.32 suggesting mature demographics are experienced vegetable growers. The regulatory bodies of the government may design an intervention to help the aging farmers.
- Most farmers (60%) grow crops year-round, using intensive farming methods to boost productivity. However, 92% farm less than 1 hectare, with an average of just 0.51 hectares. This small land size limits production scale but shows efficient land use.
- The government can support small-scale farmers by providing access to high-yield technologies, training on sustainable intensive farming, and linking them to markets to maximize their limited land.
- The community of vegetable growers relies on local resources and traditional methods, with good access to seeds and fertilizers but limited use of modern practices, training, and technology. The government may implement a support program offering training, modern tools, and access to digital technologies through partnerships with agricultural experts.

## Background

Santo Niño, Cagayan has strong agricultural potential, with vegetable farming serving as a key source of income, food security, and employment for many rural households. However, the productivity of local growers remains low due to limited access to quality seeds, fertilizers, modern equipment, and basic infrastructure like irrigation and post-harvest facilities. Farmers also struggle with weak technical support, lack of financing, and limited knowledge of sustainable, climate-resilient practices.

Despite existing government programs, many vegetable growers still face challenges in accessing effective and targeted support. To improve productivity and resilience, there is a need for stronger interventions, including enhanced extension services, better infrastructure, access to credit, and capacity-building efforts. These actions will help empower farmers to adopt modern techniques, reduce losses, and increase their overall income and sustainability.

## Research Objectives

To assess and strengthen the existing support systems for vegetable growers in Santo Niño, Cagayan to enhance agricultural productivity and promote sustainable vegetable production.

Specifically, it aimed to:

- Determine the socio-demographic status of vegetable grower respondents.
- Determine the socio-economic characteristics and other economic activities related to agriculture.
- Evaluate the agricultural activities and services received.
- Identify the Marketing, Sources of financing for vegetable production, savings, investments and problems encountered.

## Methodology

This study used a descriptive research design to examine the profile of vegetable growers in Sto. Niño, Cagayan. Fifty (50) community residents were randomly selected from the list of registered vegetable growers in the area.

Data were gathered through a validated questionnaire, which covered agricultural practices, economic activities, services received, marketing, financing, savings, and challenges. Face-to-face interviews were also conducted to support the responses. Prior to data collection, permission was secured from local officials. The researchers personally administered the questionnaires to ensure full retrieval. Data were analyzed using frequency counts, percentages, and ranking to interpret socio-demographic profiles and identify common problems.

## Key Findings

### Farmer Demographics

The majority of vegetable growers are middle-aged, married males, predominantly Ilocano, and members of farmer organizations. Most have completed high school or college, indicating moderate educational attainment that could support further training and skills development.

### Farming Practices and Resources

Most farmers operate on small plots (less than 1 hectare) and practice year-round cultivation. They rely heavily on local resources and traditional tools, with limited use of mechanized equipment or modern techniques. Hybrid seed varieties are commonly used, but access to irrigation remains limited and mostly private.

### Access to Support Services

While 90% of farmers received seeds and fertilizers from government sources, only 52% had attended training, and even fewer accessed services like irrigation support (4%) or technology demonstrations (6%). Awareness of Good Agricultural Practices (GAP) was moderate (60%), but only a third actually practiced them.

### Production and Marketing Challenges

Farmers face major issues such as flood and typhoon damage, pest infestation, and high dependency on synthetic inputs. Most sell through middlemen (66%) who control pricing, limiting farmers' earnings and market power. Only 26% transport their products directly, and pricing is often dictated by buyers.

### Financial and Risk Management

While 74% reported having sufficient capital, nearly half rely solely on personal savings. Very few access crop insurance (26%) or government financial aid. Environmental risks significantly impact yield, with 54% reporting reduced harvests and 46% reporting total crop loss during severe events.

## Conclusion

The socio-demographic profile of vegetable grower respondents reveals a predominantly male, middle aged, married population with a strong cultural identity and significant organizational involvement. The socio-economic characteristics of the vegetable grower respondents reveal a dedicated and primarily self-sufficient agricultural community. Result also reveals that a community of vegetable growers that relies heavily on local resources and traditional practices. The community of vegetable growers who face significant challenges in marketing, production costs, and environmental risks. While there is a sense of capital sufficiency among many respondents, the reliance on intermediaries for sales 2024 and the vulnerability to climate-related damage are concerning.

## Policy Recommendations

The findings suggest a need for improved market access, better pricing strategies, and enhanced support for risk management to bolster the sustainability and profitability of vegetable production in this community. Addressing these issues could lead to more resilient agricultural practices and improved economic outcomes for the growers.

## Target Policy Actors and Beneficiaries



## References

**Baba, S. H., Zargar, B. A., Ganaie, S. A., Yousuf, S., & Sehr, H.** (2010). Gender participation in vegetable cultivation in Kashmir Valley. *Indian Research Journal of Extension Education*, 10(2), 66–69.

**Department of Agriculture.** (2022). Agricultural credit and financing programs. <https://www.da.gov.ph/services/agricultural-credit-and-financing-programs/>

**Philippine Statistics Authority.** (2022). Selected statistics on agriculture and fisheries 2022. <https://psa.gov.ph>

**Putnam, R. D.** (2000). *Bowling alone: The collapse and revival of American community.* Simon & Schuster.

**Welch, F.** (1970). Education in production. *Journal of Political Economy*, 78(1), 35–59.

## Editor's Note

This policy brief is based on results of the CSU-funded project "Profile of Vegetable Growers in Sto. Nino, Cagayan: An Assessment" This project was implemented by the Cagayan State University - Piat and Andrews Campus. The project team is composed of Michael M. Uy, Josie Y. Bas-ong and Claudine S. Campado.

## About CSU Policy Brief

Our policy brief offers an in-depth analysis of contemporary challenges and opportunities within higher education, with a special focus on the unique context of Cagayan State University. Through rigorous research and stakeholder engagement, we examine key areas such as academic innovation, research advancement, community engagement, and administrative excellence. Each recommendation is carefully developed to foster an environment of growth, equity, and sustainability. **This policy brief is published bi-annually.**

Our approach is built on transparency and inclusiveness. By integrating comprehensive data analysis with practical insights from experts and the broader university community, we ensure that our policy recommendations are not only academically robust but also practically implementable. This process underscores our commitment to creating a positive and lasting impact on the university's future.

The policy brief also serves as a platform for translating research outputs into practical policy insights across six strategic thematic areas including Science and Technology in Agriculture, Natural Resources, Education, Food Science and Chemistry, Public Health and Medicine, and Behavioral and Social Sciences. These areas reflect the university's research priorities and address emerging concerns related to agriculture and livestock, environmental management, teaching and learning, food innovation, clinical diagnostics, and community resilience.

While these publications provide science-based interventions for regional and national development, the analyses and recommendations are those of the authors and do not necessarily represent the official positions of Cagayan State University. Any reproduction, distribution, or citation of this work must acknowledge the author and the CSU Policy Brief.

All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means without prior permission from Cagayan State University. This Policy Brief is part of the CSU Policy Brief.



### Get in touch with us via:

-  [facebook.com/csuktmpo](https://facebook.com/csuktmpo)
-  [csu\\_ktmoffice@csu.edu.ph](mailto:csu_ktmoffice@csu.edu.ph)
-  [csu.org.ph/policybrief](https://csu.org.ph/policybrief)



**Cagayan State University**

Knowledge & Technology Management and Publication Office

RDE Bldg., CSU- Andrews Campus Caritan Sur, Tuguegarao City, Cagayan

## Editorial Board

**Gilbert C. Magulod Jr., PhD**  
Editor-in-Chief

**Patrianne M. Padua, PhD**  
Associate Editor-in-Chief

## Peer Reviewers

**Audy R. Quebral, DPA**

**Josie Y. Bas-Ong, PhD**

**Anderson G. Gonzales, PhD**

**Charmie S. Calvo, DIT**

## Editorial Staff

**Jamaica C. Pedro**  
Managing Editor

**Marcel W. Visitacion**  
Layout Artist

## Technical Staff

**Christian Dave E. Columna**  
IT Technician

## Interagency Local Advisory Board

Cagayan State University

University of the Philippines Diliman

University of Santo Tomas

Bureau of Fisheries and Aquatic Resources

Department of Agriculture

Department of Education

Department of Trade Industry

Department of Economy, Planning, and Development



**POLICY BRIEF**

Cagayan State University  
Knowledge & Technology Management and Publication Office



[csu.org.ph/policybrief](http://csu.org.ph/policybrief)