IOCAG 2025 Conference

The 3rd International Online Conference on Agriculture

22–24 October 2025 | Online

MDPI

SERICULTURE FOR ECONOMIC EMPOWERMENT:

Evidence from Community-Based Projects in Binalonan, Pangasinan, Philippines

Edwina Valdez Garcia, Rodolfo Gaon Nillo, Elizabeth Padonan Obra

Sericulture Research Development Institute, Don Mariano Marcos Memorial State University

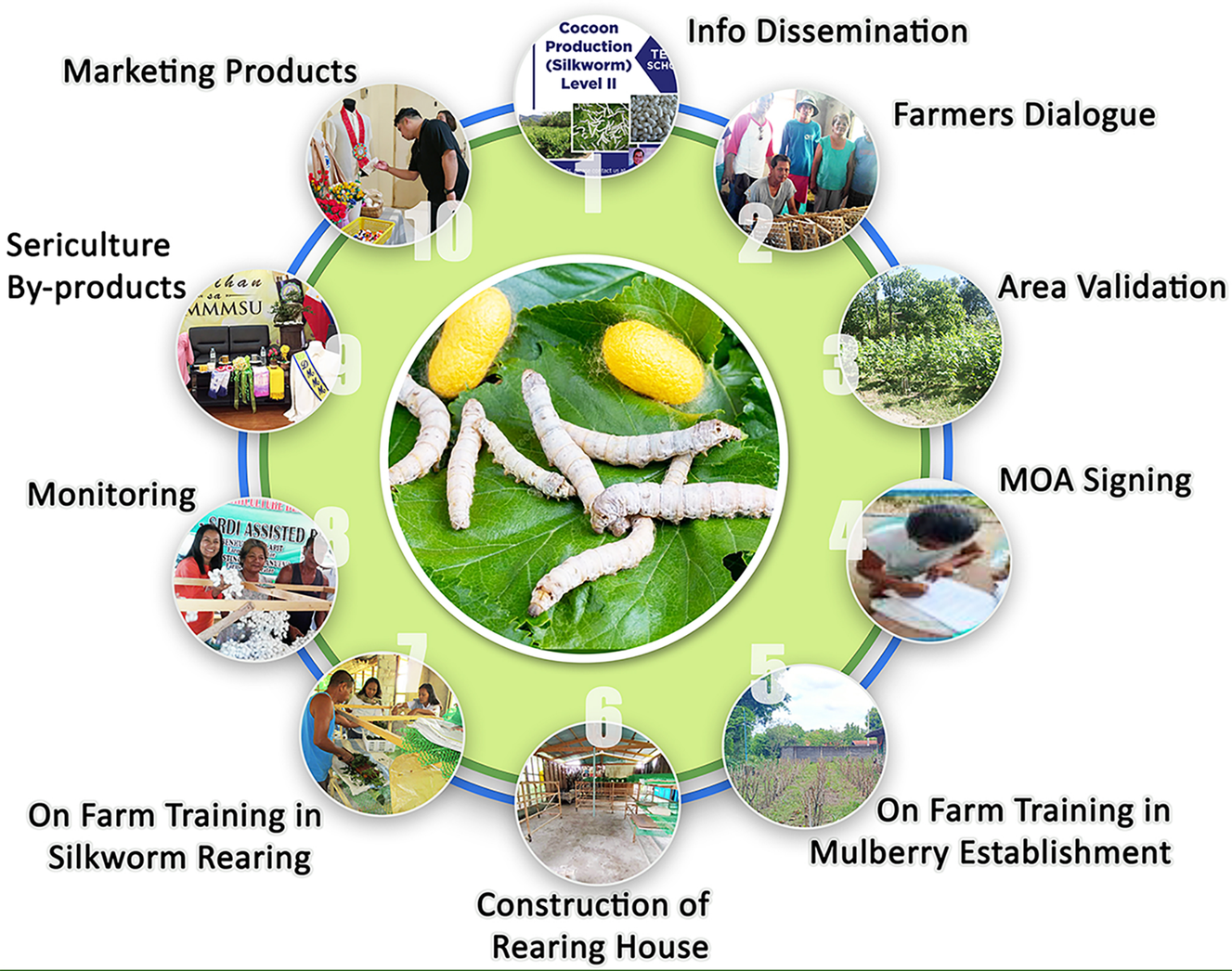
Bacnotan, La Union, Philippines 2515

INTRODUCTION AND AIM

Sericulture is an agro-based industry that supports rural development, environmental sustainability, and socio-economic upliftment. Recognized for its eco-friendly nature inclusivity, Sericulture provides livelihood opportunities, particularly for marginalized rural communities. The Don Mariano Marcos Memorial State University - Sericulture Research Development Institute (DMMMSU-SRDI) implemented extension projects in Binalonan, Pangasinan, from 2018 to 2023, supported by Senator Loren Legarda Fund and DMMMSU-SRDI Regular Fund. These Projects aimed to demonstrate sustainable sericulture practices, assess profitability and promote employment and environmental benefits through pilot farms The initiative involved sapling and mulberry leaf production, silk rearing, and the utilization of sericulture by products.

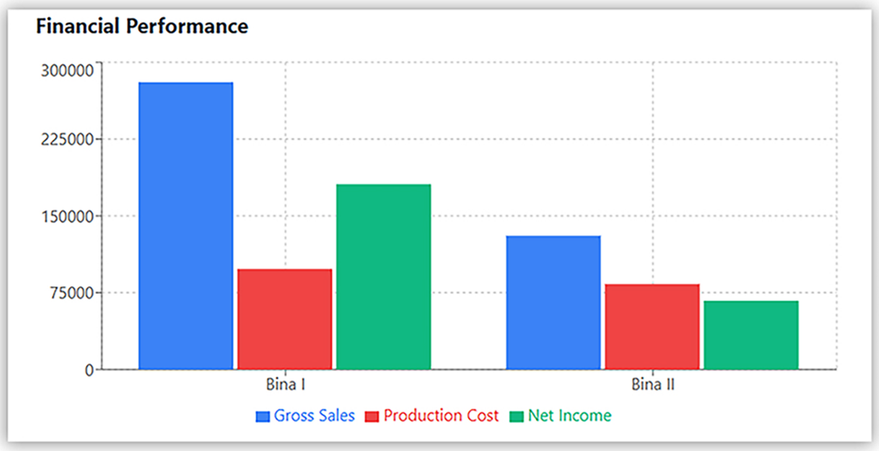
METHODOLOGY

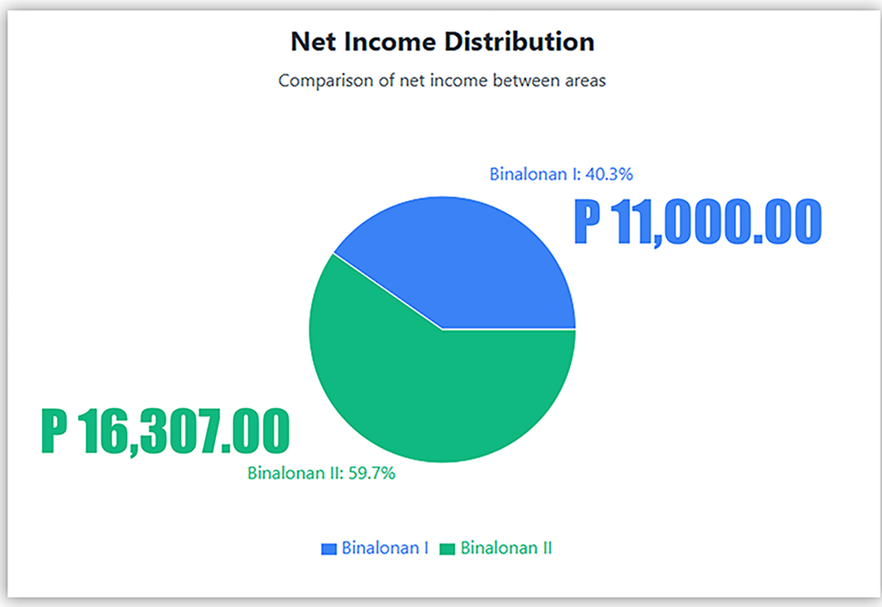
STRATEGIES OF IMPLEMENTATION



RESULTS AND DISCUSSION

Productivity and Profitability of Binalonan Sericulture Projects (CY 2018-2023)





Sericulture is a profitable agro-based industry primarily to uplift the socio-economic conditions of marginal farmers and community people. It is a potential source of livelihood/employment hence, it can provide employment and additional income to farmers and rural people in farm and utilization of farm by-products thus enhancing the livelihood program of rural communities. It also supports government programs for environmental protection and preservation.

CONCLUSION

Sericulture in Binalonan, Pangasinan, Philippines has proven to be a viable and profitable livelihood enterprise. From 2018 to 2023, farmer cooperators implemented best practices in mulberry cultivation, silkworm rearing, and by-product utilization, resulting in 1,377.19 kg of fresh cocoons from 52.05 boxes, with an average yield of 26.48 kg per box. Cocoon sales reached PHP 411,320.00, generating a net income of PHP 248,164.10 and an ROI of 155.17%, while by-products provided an additional PHP 27,307.00 income with a 94.93% ROI. Sericulture increased farmers' income by 131.38% and created 306.46 person-days of employment. Overall, it stands as a sustainable, low-investment livelihood offering high returns and strong rural employment potential.

FUTURE WORK / REFERENCES

Strengthen Partnerships: Collaborate with research institutions, universities, private sectors, and NGOs to boost industry support.

Enhance Technologies: Develop cost-effective, field-adaptive methods for mulberry cultivation and silkworm rearing to improve yield.