PROMOTING FOOD RESILIENCE THROUGH PALAISDAAN SA PAMAYANAN PROJECT

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ABSTRACT

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This extension project, unique in its approach, aimed to enhance the productivity and profitability of inland/freshwater aquafarmers through capacity building and technical support. It fostered collaboration among Davao Region Research, Development, and Extension Network (DARRDEN) members in sustainable food production. The project's uniqueness lies in its comprehensive approach, which included a site survey to identify potential demo farm locations, resulting in the establishment of two demo ponds—one in Lacaron and another in Demoloc, Davao Occidental—both dedicated to tilapia culture (SEAFDEC Aquaculture Department, 2015). Memoranda of Agreement were made with Local Government Units (LGUs) and the Bureau of Fisheries and Aquatic Resources (BFAR, 2015). After six months of culture, these ponds yielded a harvest of 251 kg of Tilapia, with an average weight of 250 g—the yields and technical approaches align with recent trends in Philippine aquaculture extension (Malayang et al., 2020). Trainings covered tilapia pond culture, hatchery management, and post-harvest techniques, enabling participants to produce Tilanggit and Tilapia Lamayo and imparting knowledge on low-temperature preservation

and proper fish handling (SEAFDEC Aquaculture Department, 2015). The project effectively improved the knowledge and skills of beneficiaries in sustainable inland/freshwater fish culture, resulting in increased productivity and profitability for inland fish farmers. This multifaceted initiative successfully combined technical assistance, capacity building, and collaboration to drive positive outcomes for aquafarmers in the Davao Region.

INTRODUCTION

Food self-sufficiency, a priority government program, envisions a food-secure Philippines with prosperous farmers and fisherfolk (BFAR, 2015; FAO, 2015). In support of this vision, the Department of Agriculture Regional Field Office XI, through DARRDEN, initiated a project to promote food resiliency. This project, in collaboration with State Colleges and Universities (SUCs) in the Davao Region—including SPAMAST—aims to increase productivity and profitability with a focus on sustainability and resiliency (Department of Agriculture, 2020). One component is the "Palaisdaan sa Pamayanan (PPP)" which pursues fishery resiliency with the BFAR as lead agency, in coordination with LGUs and the private sector (BFAR, 2015). The project's alignment with these national priorities underscores its relevance and potential impact.

The collaborative efforts among the Department of Agriculture Regional Field Office XI, DARRDEN, SUCs, BFAR, LGUs, and the private sector are a testament to the dedicated commitment to achieving food self-sufficiency and fishery resiliency in the Philippines. This collective effort, which includes you, our esteemed stakeholders, is crucial in realizing the government's vision of a food-secure nation by leveraging and expanding existing inland aquafarms.

General Objectives

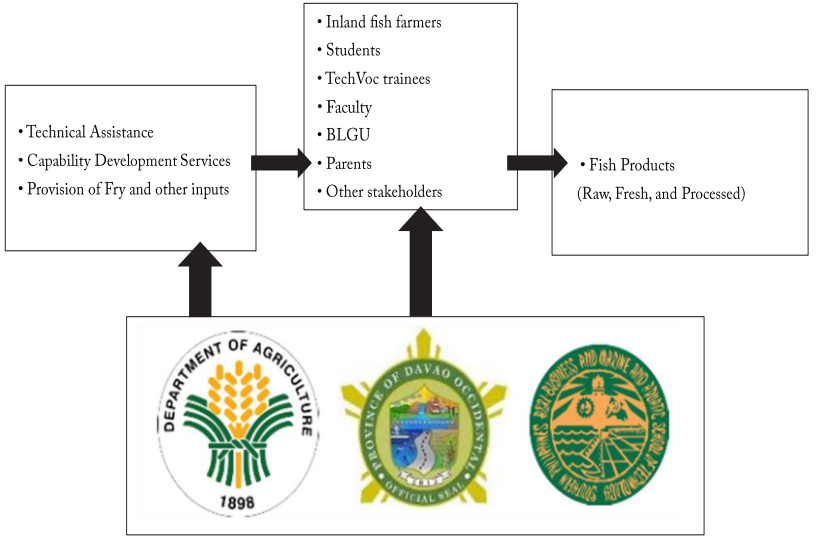
This project aimed to increase the productivity and profitability of inland/freshwater aquafarmers through capability building and technical assistance (SEAFDEC Aquaculture Department, 2015; Department of Agriculture, 2020). Specifically, it sought to:

1. To establish a demo farm in the identified site as a source of food and as a model for other communities/aquafarmers.
2. To provide capability development services to beneficiaries, cooperators, and other stakeholders.
3. To extend technical assistance to cooperators on inland fish farming technology.
4. To conduct periodic monitoring throughout the various phases of project implementation.

Conceptual Framework

Figure 1

The project "Promoting Food Resiliency through Palaisdaan sa Pamantasan Project" Framework



MATERIALS AND METHODS

Pre-Implementation and Site Selection

A pre-survey of potential sites for consideration was conducted by representatives from BFAR, SPAMAST, and the MLGU, who visited demo farms. The principal criteria for site selection were water supply, area, location, and commitment from collaborators.

Establishment of Demo Pond

Demo ponds were established in targeted sites: one in Lacaron (first year) and one in Demoloc, Malita, Davao Occidental (second year). Standard pond preparation protocols were followed before stocking. In this report, only the first pond (500 sq m) is detailed. This pond was stocked with 2,000 tilapia fingerlings sourced from BFAR, coinciding with the launch of the project.

Training

Four training sessions were implemented, with resource persons from the Bureau of Fisheries and Aquatic Resources (Provincial Office) and the faculty of SPAMAST, Davao Occidental.

Monitoring and Evaluation

Regular monitoring and evaluation were performed using a blended approach. Growth of the cultured tilapia was regularly sampled, and the collected data informed adjustments in feeding strategies.

Harvest and Market Day

Harvest was intended after four to five months, but was delayed to six months due to COVID-19 restrictions. Market Day was held after harvest, allowing beneficiaries to observe the demo's potential for inland aquafarms.

RESULTS AND DISCUSSION

Two demo ponds were established for this project, with formal Memoranda of Agreement forged between partner barangays and collaborators in Lacaron and Demoloc, Malita, Davao Occidental.

The established 500 sq. m demo pond, stocked with 2,000 fries, produced 251 kilograms of marketable size tilapia with an average body weight of 250 g. As part of the project, a series of training sessions was conducted. Four trainings were implemented:

a. Training on Responsible Tilapia Culture. Topics on Feeding Management, Growth Monitoring, Fish Health Management, Physico-chemical Monitoring, and Harvesting were discussed.
b. Breeding of Tilapia. Discussed in this training were topics on Different Types of Breeding Techniques, Selection of Broodstock, Broodstock Management, Breeding, Larval Rearing, Feeding, and Broodstock Conditioning.
c. post-harvest. This training discussed fish handling and Low-Temperature Preservation principles. Also, a techno-demonstration on tilanggit and lamayo making was carried out.
d. Training on Simple Book/Record Keeping was also conducted.

The series of trainings was participated in by the project beneficiaries, which included inland fish farmers, TechVoc trainees, students, faculty, and parents. The participants learned the technology of sustainable tilapia pond culture as well as tilapia breeding and hatchery management. For the Post-Harvest Training, the participants were able to produce tilanggit and tilapia lamayo, and they learned the principles of low-temperature preservation and proper handling of fish.

In addition to face-to-face trainings, the Davao Region RD&E Network (DARRDEN) also facilitated an Online Training on Tilapia Hatchery Management and Grow-out Culture, which was attended by two project staff and one PPP beneficiary.

Market Day

During the final harvest, other beneficiaries visited the pond demonstration area, observing inland aquafarming in practice and its production potential. The positive impact of this project on the community is a testament to the collective efforts and commitment of all involved.

Monitoring and Evaluation

SPAMAST representatives, BFAR Provincial Office, and Malita-LGU conducted monthly site monitoring, including growth sampling and face-to-face project assessments. Accomplishments were also presented through virtual evaluation sessions.

CONCLUSION

The project enhanced knowledge and skills in sustainable inland/freshwater fish culture among beneficiaries, leading to increased productivity and profitability (Malayang et al., 2020; PSA, 2020). Collaborative and resource-sharing efforts among agencies proved crucial for the successful and sustainable implementation of food resiliency projects (SEAFDEC Aquaculture Department, 2015).

RECOMMENDATION

Greater government support is recommended for the development of hatchery facilities to secure a steady supply of fry for freshwater pond operations. Inland fish farmers should be encouraged to utilize potential sites for fish production further.

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