

## NATURAL STOCKING OF MILKFISH (*CHANOS CHANOS*) IN MANGROVE-FRIENDLY AQUACULTURE SYSTEM IN AN ENCLOSED COASTAL AREA IN THE PHILIPPINES

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Natural stocking of milkfish (*Chanos chanos*) in a mangrove-friendly aquaculture system using the Agri-Nipa-Aquaculture (ANA) module at Tabinay, Puerto Galera, Or. Mindoro, Philippines was studied. A nipa (*Nypa fruticans*) plantation within a fishpond was established following the aquasilviculture concept (Baconguis, 1991). The mangrove stand at the seaward fringe was protected and mangrove and coastal organic matter was composted and used as soil conditioner/organic fertilizer for the crop production component.

Result shows that ANA technology enhanced the ecosystem and provide greater income for the farmer. Based on a 6-cropping trial, the average harvest was equivalent to 3.24 t/ha/year or 1.62 t/ha/cropping for the milkfish stocked artificially. The natural stocked milkfish yields an average of 1.45 t/ha/cropping, lower than the artificially stocked milkfish. The first nipa harvest was made when the stand was 3 years old. A feasibility study for a 0.5 ha backyard nipa-aquaculture (excluding agricultural crops) using the data generated indicated a net income of Php 38,300.00, Php 56,150.00 and Php 81,422.00 for the first, second and third year of implementation, respectively.

Agricultural crops successfully planted are salt-tolerant tomatoes (marikit variety), eggplant, pole sitao, bush sitao, okra, upo, watermelon, pineapple, banana, passion fruit, peanuts, corn, etc. Jackfruit was also growing well beside mangrove trees.

After the third year of implementation, the farmer's income increase from a mere Php500.00/year before project implementation (Sur, personal communication) to more than Php5,000.00/month at the third year of implementation. Wildlife species was also enhanced as a result of the protection of the mangrove ecosystem in the area.