
IMPACTS OF THE PD/A CRSP IN CENTRAL LUZON, PHILIPPINES

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BACKGROUND

Collaboration between the Freshwater Aquaculture Center, Central Luzon State University (FAC/CLSU) and the University of Hawaii (UH) component of the PD/A CRSP began with the Sixth Work Plan in 1991. The work was planned and budgeted as an adjunct activity of the UH component of the Thailand project, and not as a prime site. However, with considerable support from the prime site, this companion site has accomplished a progressive program of technical research and outreach. During a 4 ½ year time period, seven on-station pond growth trials and three on-farm demonstration trials involving approximately 53 farmers were completed. Additionally, the visits of two evaluation teams as well as the first of two research visits by the socioeconomic component from Auburn University were accomplished. The expenditure levels were between \$10,000 and \$20,000 per year and included international travel by U.S. and host-country PIs.

INSTITUTIONAL IMPACT

One potential impact of CRSP involvement with host-country institutions is institutional development, in terms of both facilities and equipment and education and experience for personnel involved with the project. The adjunct-activity paradigm and the small budgets have constrained impact severely in this case. The UH component has provided two computers and several dissolved oxygen and pH meters to the FAC, at a cost of about \$5,000-\$6,000; funds for pumps and facilities repairs have been provided at about \$1,000. We have provided no scholarship assistance *per se*, but have assumed

expenses associated with treatments added to experiments in the interest of student thesis research (Kedtag, 1993). The host-country PI attended four annual meetings of the CRSP, two of which were held in conjunction with the annual meetings of the World Aquaculture Society. In addition, the host-country PI traveled twice to the Thailand site for collaborative research. Journal publications are in preparation involving the host-country PI in senior and junior authorships. Evaluation teams have recognized the constraints, praised the efforts and accomplishments detailed here, and lamented the difficulty in expansion to fuller efforts during these years.

REGIONAL IMPACT

The CRSP's goal extends beyond the collaborating institutions, aiming in the large perspective, for improved food production in its operating areas and beyond. Although individual components ought not be held to a standard of attaining the overall goal in the short term, efforts to extend beyond the setting of technical research should be documented. Central Luzon was one of the locations surveyed by the Auburn University socioeconomic activity (Molnar et al., 1994) for its current fish farming characteristics and practices, and the amenability of the systems to adoption and improvement through technical research. It was found that practices and receptivity showed high potential for CRSP impact. Extension efforts by FAC and Philippine Bureau of Fisheries and Aquatic Resources (BFAR) personnel since the early 1970s had included recommendations to fertilize tilapia production ponds with the materials used in CRSP research, though with different protocols and rates of application. Thus, CRSP recommendations constituted revision rather than revolution.

On-station results showing enhanced yields from unfed fertilized ponds were successfully translated to enhanced yields in on-farm trials, both in the lowlands surrounding FAC, and in the uplands of Mountain province, where this project completed the examination of stocking density effects at an altitude which was similar to that of the PD/A CRSP Rwanda project.

LITERATURE CITED

- Kedtag, A.Q., 1993. Production of Nile tilapia (*Oreochromis niloticus* L.) in ponds applied with high nutrients. M.S. Thesis. Central Luzon State University, Philippines, 86 pp.
- Molnar, J.J., T.R. Hanson, and L.L. Lovshin, 1994. Minding the pond: Feeding, fertilization, and stocking practices for tilapia production in Rwanda, Thailand, the Philippines, and Honduras. In: H. Egna, B. Goetze, and N. Weidner (Editors), Twelfth Annual Technical Report, Pond Dynamics/Aquaculture CRSP, Office of International Research and Development, Oregon State University, Corvallis, OR, USA, pp. 34-46.