

SHRIMP POND REHABILITATION: OPTIONS FOR ALTERNATIVE INCOME GENERATION By Natalie J. Stevenson¹, P.R. Burbridge¹ and J.F.Muir²: ¹Centre for Tropical Coastal Management Studies, Department Marine Sciences and Coastal Management, University of Newcastle upon Tyne, NE1 7RU, UNITED KINGDOM, ²Institute of Aquaculture, University of Stirling, FK9 4LA, UNITED KINGDOM:—The social and environmental problems of uncontrolled development of tropical coastal resources for shrimp aquaculture have been widely documented, and can be compounded by the abandonment of unsuccessful production. There are convincing environmental, social and economic arguments for converting or rehabilitating disused shrimp ponds, and for creating alternative and sustainable livelihoods in affected areas. However, little work has so far been conducted to elucidate the conditions associated with disused ponds, or to identify the implications these may have for future alternative uses or functions. The percentage of ponds left truly idle is not known, though many pond operators attempt alternative income generating activities in disused ponds. These are often unsustainable, unsuccessful, and may even contribute to further habitat degradation. Examples include the sale of pond top soil for construction projects in parts of Thailand, attempts at blood cockle and mussel mariculture in parts of Thailand (largely unsuccessful due to lack of seed, predation problems, lack of investment credit, and insufficient technology transfer), and seaweed culture in the Philippines (which have failed for unknown reasons). Where restoration is attempted, efforts to date have focused almost exclusively on mangrove planting in ponds built in previous mangrove forest, though many ponds were created in already degraded lands, fish ponds, rice paddies, sugar cane or coconut plantations. All too frequently these restoration efforts centre on active planting schemes, without site evaluations or assessment of the potential for secondary succession, and yet evidence suggests that in many cases planting may be unnecessary. Basic information on pond condition and local context should form the starting point for any rehabilitation activity, and efforts should be encouraged to rehabilitating ponds in the full range of land use types. A more rational and rigorous approach should be adopted to assist communities to identify promising livelihood options/income generating activities, and to develop and implement remedial action. This should include: identification of stakeholder objectives, opportunities and constraints through participatory diagnoses; identification of conditions in ponds following disuse; case studies: monitoring of experimental plots and control sites; and community training and awareness programmes. A 'decision support system' based on questions and answers and reasons for rejecting options is presented as a means to evaluate management options in disused shrimp ponds.