

ABSTRACT

Title: Impacts of Prawn-Raising on Mangrove Forests in
Trang Province, Thailand

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Due to the deterioration of mangrove forests and the promotion of prawn-raising in these forests, it is necessary to investigate impacts of prawn-raising on mangrove forests. Thus, this research was conducted to examine: 1) personal and economic characteristics of prawn-raising farmers in Trang province; 2) impacts of prawn-raising in mangrove forests on farmers' socio-economic features, environments and ecological system; and 3) problems and obstacles concerning prawn-raising in mangrove forests. The data were collected by interviewing 137 prawn-raising farmers selected by the multi-stage random sampling.

The research results revealed that most of the respondents were male, married, 39 years old on average, had an average of 4 household members, 2 of whom contributed to prawn-raising. The percentage of respondents owning land was 56.20. Their average land-holding was 21 rai, 9 of which was used for prawn-raising. Major incomes were obtained from prawn-raising and para rubber growing, at an average of 374,854 baht/year.

The analysis in which Siegel's Sign Test was used revealed that prawn-raising in mangrove forests had impacts on the respondent's economy. For social impacts, the comparison of average scores in the past with the present by means of t-test showed that prawn-raising in mangrove forests had no impact on the respondents' group activities, training, participation in social activities but it had impacts on their contact with officers and information access.

It was found that prawn-raising had no overall impact on mangrove forests since no significant difference was found between the past and the present. However, when considering each aspect, the following impacts were found to increase: 1) the ponds had long been used, causing water pollution and diseases in prawns; 2) prawn-raising areas were deteriorating; 3) quantities of organic matters were high, affecting young aquatic life; and 4) water was cloudy, affecting prawn-raising along the shore. The following impacts were found to decrease: 1) the release of sewage, wastes and oil into the water; 2) decreased quantities of phytoplankton and zooplankton; and 3) deterioration of trees in mangrove forests.

The problems and obstacles stated at a highest level by the farmers were 1) high prices of prawn breeds and antiseptics; 2) low prices of products; and 3) lack of sources of loans with low interest rates. The problem stated at a high level was cleanliness of the water for raising prawns. Other problems were stated at a moderate level.