

Monruedee Popradit 2011: The Competency of Aquaculture Farmers towards Coastal Aquaculture Management under Sufficient Economy: A Case Study in Samut Sakhon Province. Master of Science (Fishery Management), Major Field: Fishery Management, Department of Fishery Management. Thesis Advisor: Assistant Professor Sangtien Aujjimangkul, M.S. 177 pages.

Samutsakorn Province is a coastal area where coastal aquaculture development had taken place. Changed environment made farmer to adapt themselves in culture pattern in order to manage their aquaculture under sufficient economic principle. The objectives were to study socio economic aspects of aquaculture farmers, aquaculture pattern, and to study competency and factors affected to competency of farmers. The study was done by interviewing 182 coastal aquaculture farmers from multistage sampling. Selection of study areas were done by selecting 1-2 villages from each sub district with 4 aquaculture patterns; shrimp culture, cockle culture, mud crab culture, and white sea bass culture. The result showed that the average age of farmers was 48.7 ± 11.9 years and culture experience ranged from 5 to 60 years. Farmers of 42.3% had aquaculture income less than 10,000 baht/month when farmers of 76.4% earned profit from aquaculture. Farmers of 90.1% operated semi intensive aquaculture. Farmer's competency study showed that farmer of 40.1% had high competency in knowledge with knowledge scores more than 75. Farmers from the west part of Thachin river got high competency score more than farmers from the east part with statistically significant ($p\text{-value} < 0.05$). Farmers of 56.7% had low competency in aquaculture especially in seed selecting, water quality management, and farm system recoding of which farmer from the west side of Thachin river had skill more than the farmer from the east side. Mud crab farmers and white sea bass farmers had statistic significantly different competency from shrimp farmers and cockle farmers ($p\text{-value} < 0.05$). Farmer's competency in characteristic showed that thinkers and intuitive thinkers, who easily accept the changes, were 66.9% of samples. The result also showed that income, news and information perception, opinion in aquaculture under sufficient economic principle, and expectation in aquaculture had statistic significantly related to competency in aquaculture under sufficient economic principle ($p\text{-value} < 0.01$) ($r_s = 0.194$, $r_s = 0.32$, $r = 0.295$, and $r = 0.254$ respectively). Strengthening farmer's competency both in knowledge and practice skill on their characteristics could be done by adjusting their thinking, building up collaborative learning, passing on news and information perception via television and radio, and educating from government officer including developing farmers who had high competency to be leaders for other farmers in the area to have collaborative learning and building up group working together under sufficient economic principle. This could level up the competency of farmers in aquaculture which would result in security of coastal aquaculture and equilibrium of coastal ecosystem further.

Student's signature

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