Community Participation in Artificial Reef Management in Pulau Panggang Rural Government Office – The Administrative District of Kepulauan Seribu

Erwin Fahry

The aims of this study are (1) to find out the condition of coral reef and artificial reef existed in Pulau Panggang Rural Government Office (RGO) – the Administrative District of Kepulauan Seribu; (2) to find out the community participation level and the factors influencing the community participation level in the artificial reef management; (3) to find out the government participation in the artificial reef management; (4) to analyze the strengths and weaknesses of current development system; and (5) to formulate the appropriate artificial reef management strategy.

The data of coral reef condition showed that the use of coral reef ecosystem was and had been on-going excessively, so it tended to be seriously degrading. The condition of coral cover in eight locations in the area showed one good location (54.72%); four quite good locations (26.79%, 39.95%, 29.94%, and 27.68%), and three bad locations (16.79%, 23.64%, and 2%), while the observation toward the artificial reef in the Fish Shelter module showed benthic attaching to reef media and several kinds of coral fish.

The result of observation toward the community participation level in the artificial reef management varied in each activity, ranging from low to medium. The result of observation showed that one of the community motivators to participate was the expectation for benefits or compensations obtained from the activities conducted; while the constraints were their experiences in the past, which caused their reluctance to join the group, and the paradigm of marine and fishery development in the past, where the managing responsibility was within the government. The result of principle component analysis showed that the factors/variables influencing the community participation comprised of the variables highly correlated with the first main axis i.e. age, education and number of family member, while the second influencing factors comprised of income and duration of staying.

The SWOT analysis toward the internal-external factors resulted in several strategies to conduct in the artificial reef management, i.e.: (a) Strength-Opportunity Strategy the use of develop tourism potency through participatory of local people; (b) Strength-Threat Strategy through optimization of local people participation to against destructive activity; (c) Weakness-Opportunity Strategy through increase local people participation and counselling on each stage of coral reef management; and (d) Weakness-Threat Strategy through develop coordination of institutions and controlling to against destructive activity.