

UNIVERSITI PUTRA MALAYSIA

ENVIRONMENTAL AWARENESS OF ARTISANAL FISHERS AND THEIR PARTICIPATION IN CO-MANAGEMENT IN MANJUNG DISTRICT, MALAYSIA

AHMAD FAISAL BIN ALIAS

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UPM

By

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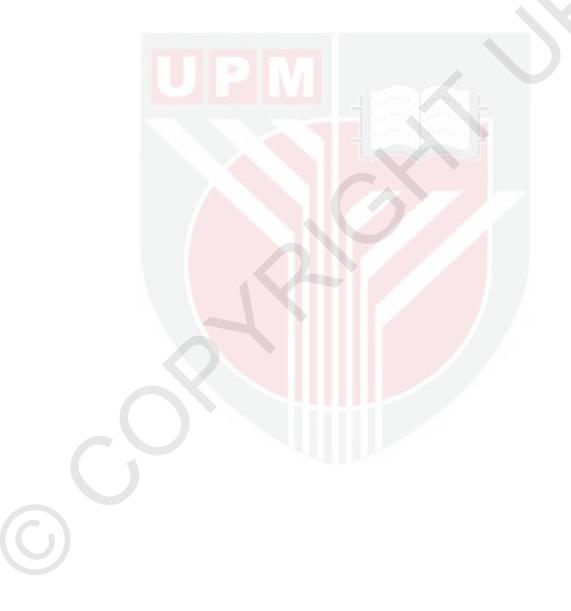
Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia, in Fulfilment of the Requirements for the Degree of Doctor of Philosophy

February 2014

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Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfillment of the requirement for the degree of Doctor of Philosophy

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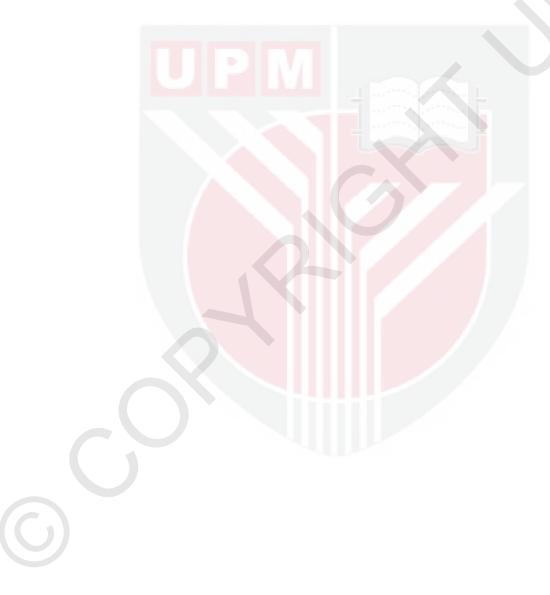
February 2014

Chair: Associate Professor Mohd Bakri bin Ishak, Ph.D

Faculty: Environmental Studies

The research was conducted to measure the level of environmental awareness, knowledge, attitudes, and their perceptions of and the willingness to participate in community based fishery co-management program of artisanal fishers in the district of Manjung, Perak. The main research instrument is a face-to-face interview survey form. The respondents are 268 sampled (33.3 percent through stratified sampling method) coastal fishers holding the Class A license, who primarily operates small fishing boats within five nautical miles from shore and using traditional fishing methods. A series of surveys were conducted at selected fishing jetties and the district's fisheries department offices. The research employs a quantitative statistical analysis approach. The analyses found that the mean environmental awareness level is 'Medium' (Mean = 2.84; SD = 0.98) and is significantly correlated only to their level of education (r = 0.159, n = 268, p < 0.005). Their main sources of environmental information and knowledge are the television, newspaper and radio. Only 39.9 percent of the respondents reported that they were provided information regarding the environment form the authorities and that the authorities are not doing a good job at providing the information. The respondents also reported some degrees of 'Medium' environmental knowledge (Mean = 2.96) and knowledge of environmental concepts (Mean = 2.70; SD = 0.74) and also 'Medium' pro-protective attitude towards the environment (Mean NEP score = 3.22; 53.3 summative pro-NEP score). However, their environmental awareness, knowledge and attitude are critically undermined by the pro-Dominant Social Paradigm (DSP) worldviews and attitude, as revealed by the factor analyses of their environmental knowledge and New Ecological Paradigm (NEP) scale. This fact would negatively affect their perception and behavior towards the environment and their motivation to participate in fishery resource co-management programs. Therefore, it is highly recommended that artisanal fishers be given more direct access to environmentally related information so that the influence of the DSP could be

reversed and they would be more receptive towards and to actively participate in community-based fishery resource co-management programs. This can be achieved through direct and indirect methods such as having short courses or briefings, distribution of printed information or handouts and the use of mobile or other information and communication technologies (ICTs). Positive environmental awareness and attitudes can be enhanced through direct and indirect learning experience. Interest in co-management could also be encouraged through long term formal and informal information delivery methods and environmental education process and strategies at all levels.



Abstrak tesis dikemukan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan ijazah Doktor Falsafah

KESEDARAN ALAM SEKITAR PARA NELAYAN ARTISANAL DALAM DAERAH MANJUNG DAN PENGLIBATAN MEREKA DALAM PENGURUSAN BERSAMA DI DAERAH MANJUNG, MALAYSIA

Oleh

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Februari 2014

Pengerusi: Profesor Madya Mohd Bakri bin Ishak, Ph.D

Fakulti: Pengajian Alam Sekitar

Kajian ini telah dijalankan bagi mengukur tahap kesedaran, pengetahuan dan sikap alam sekitar, persepsi serta kesanggupan mereka untuk menyertai program pengurusan ber<mark>sama sumber perikanan komuniti dala</mark>m kalangan nelayan artisanal di Daerah Manjung, Instrument utama kajiselidik ini adalah borang kaji selidik temuramah secara bersemuka. Para responden terdiri daripada 268 nelayan pantai yang disample dari memegang lesen Kelas A (33 peratus melalui kaedah persampelan berstrata), yang mengendalikan bot-bot menangkap ikan yang kecil sejauh lima batu nautika dari pantai serta menggunakan kaedahkaedah menangkap ikan tradisional. Suatu siri kajiselidik telah dilaksanakan di beberapa jeti pendaratan terpilih serta di pejabat-pejabat Jabatan Perikanan Daerah Manjung. Kajian ini menggunapakai pendekatan analisa statistik kuantitatif. Analisa mendapati bahawa tahap kesedaran alam sekitar para responden adalah pada tahap 'Sederhana' (Min = 2.84; SD = 0.98) dan berhubungkait secara signifikan hanya kepada tahap pendidikan mereka (r =0.159, n = 268, P < 0.0005). Sumber utama maklumat dan pengetahuan alam sekitar mereka adalah televisyen, suratkhabar dan radio. Hanya 39.9 peratus menyatakan meraka menerima maklumat berkaitan alam sekitar dari dari pihak berwajib dan mereka tidak melakukannya dengan berkesan. Para responden juga melaporkan tahap pengetahuan alam sekitar (Min = 2.96) dan pengetahuan konsep-konsep alam sekitar yang 'Sederhana' (Min = 2.70, SD = 0.74), serta mempunyai sikap protektif terhadap alam sekitar (Skor min NEP = 3.22; jumlah skor NEP = 53.3). Walaubagaimana pun, tahap kesedaran, pengetahuan serta sikap alam sekitar mereke yang positif telah dipengaruhi secara kritikal oleh pandangan yang pro-Dominant Social Paradigm (DSP) terhadap alam sekitar, seperti yang ditunjukkan oleh analisa-analisa faktor eksploratori terhadap skala pengetahuan alam sekitar dan skala New Ecological Paradigm (NEP) mereka. Fakta tersebut akan mempengaruhi secara negatif persepsi dan perilaku mereka



terhadap alam sekitar serta kesediaan mereka untuk mengambil bahagian dalam program-program ko-pengurusan sumber perikanan. Sehubungan itu, adalah disyorkan agar para nelayan artisanal diberikan lebih banyak akses langsung kepada maklumat dan pengetahuan berkaitan alam sekitar bagi menongkah pengaruh DSP agar mereka lebih terbuka kepada penerimaan dan mengambil bahagian secara aktif dalam program-program ko-pengurusan sumber perikanan berasaskan komuniti. Ini boleh dicapai melalui kaedah-kaedah langsung dan tidak langsung seperti mengadakan kursus-kursus pendek atau sesi taklimat, penyebaran maklumat-maklumat bercetak atau makalah serta menggunapakai teknologi mudah-alih dan lain-lain teknologi maklumat dan komunikasi (ICT). Kesedaran dan sikap alam sekitar yang positif juga boleh dipertingkatkan melalui pengalaman pembelajaran langsung dan tidak langsung. Minat terhadap ko-pengurusan juga boleh dipupuk melalui kaedah penyampaian maklumat secara formal dan tidak formal serta proses serta strategi pendidikan sepanjang hayat alam sekitar di semua peringkat.

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This thesis was submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfillment of the requirement for the degree of Doctor of Philosophy. Members of the Supervisory Committee were as follows:

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