

THE CONSERVATION AND MANAGEMENT  
OF INSHORE FISHERIES  
OF PENINSULAR MALAYSIA  
By SAHARUDDIN DATO HAJI ABDUL HAMID



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The conservation and management of inshore fisheries of  
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# **The Conservation and Management of Inshore Fisheries of Peninsular Malaysia**

A thesis submitted to the University of Wales  
for the degree of  
Doctor of Philosophy

by

Saharuddin Bin Dato' Hj. Abdul Hamid  
B.Sc. (UPM), M.Sc. (Tokyo)

In the Name of Allah, the  
Beneficent, The Merciful

**Department of Maritime Studies and International Transport  
University of Wales College of Cardiff**

February 1996

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is thesis is the work of my own investigation except where otherwise stated. All sources are fully acknowledged in the appendices. A bibliography is included.

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Beneficent, The Merciful

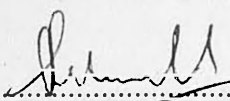
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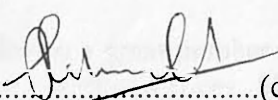
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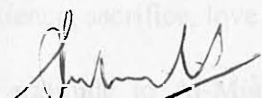
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## Acknowledgements

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## ABSTRACT

This thesis addresses the existing arrangements for the management of the Malaysian inshore fisheries, particularly emphasis on fisheries conservation. To provide a framework in evaluating the current system, four key issues are identified, namely, technical conservation measures, fisheries regulations, the fisheries enforcement system and fisheries environmental management. The study includes a questionnaire survey, measuring the perception of the inshore fishermen in six selected regions throughout Peninsular Malaysia. The survey explores and analyses three main issues: the effectiveness of the present regulations, the fishermen's awareness of the fisheries regulations and the performance of the fisheries enforcement unit. To complement the findings, interviews and discussions were conducted with key individuals in the industry. In environmental management, the study has also identified four factors that play a critical role in the conservation of inshore fisheries, namely, water quality, the mangroves, the coral reefs and the marine parks. Artificial reefs are considered as an important fisheries management tool to increase fish species diversity but whether these are a tool to increase catches as well as to rehabilitate the resources has not been established. Besides the trawl, the study has also identified certain other types of fishing gear operating in the inshore waters that potentially cause degradation of the resources. Overall findings indicate that the status of the conservation measures in the inshore waters is faced with an imbalance in the level of their implementation, specifically on the west coast regions. This is mainly due to different levels of awareness of fishermen of the regulations as well as in the performance of the fisheries enforcement units among the regions studied. One of the other main prevailing problems found in the study is the inadequacies of both biological and socio-economic fisheries information to facilitate better management of the fish resources or to formulate development policies. In conclusion, all the main findings are incorporated in a 'Management Model', which can be used as a future management framework in fisheries conservation of Peninsular Malaysia.