

**UNIVERSITI TEKNOLOGI MARA**

**COMMUNITY-BASED  
CONSERVATION FRAMEWORK  
IN MANAGING MANGROVE  
REHABILITATION IN PERAK AND  
SELANGOR**

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Thesis submitted in fulfillment  
of the requirements for the degree of  
**Doctor of Philosophy**

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## AUTHOR'S DECLARATION

I declare that the work in this thesis was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the results of my own work, unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

I, hereby, acknowledge that I have been supplied with the academic Rules and Regulations for Post Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

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## ABSTRACT

The destruction of mangrove forest has become severe in the developing countries due to natural disasters and anthropogenic processes which include lack of community participation and awareness. Community-based conservation (CBC) is one of the important approaches in mangrove rehabilitation programmes. However, this approach has not been well implemented in Malaysia. Thus, this study explores the psychological and institutional factors that may have influenced the CBC establishment based on the socio-demographic characteristics. The study aims to develop a framework of CBC establishment in managing mangrove rehabilitation programmes based on the psychological and institutional factors. The psychological factors include four variables of willingness to participate (WTP), knowledge, perception and attitude. The institutional factors involve nine inter-related themes which is roles of agencies, justification, capability, management factor, risk and benefit perceived, knowledge transfer, community strength and community issues. The study employed the sequential mixed-method by combining quantitative and qualitative approaches. A survey involving 377 participants was conducted in three study areas namely Kuala Gula (KG) and Kuala Sepetang (KSP) in Perak, and Kuala Selangor (KSR) in Selangor. The multi-stage sampling technique was used to select the samples from the Malay and Chinese groups. Subsequently, purposive and snowball sampling techniques were employed in the selection of 16 key-informants for the interviews. The quantitative data were analysed using univariate and bivariate analysis, cross-tabular and internal consistency reliability analysis, while, the thematic analysis was used to analyse the qualitative data. It was found 46.3% Malay respondents and 90.4% Chinese respondents were not involved in the mangrove rehabilitation programme. The result of Pearson correlation's ( $r$ ) indicates a significant correlation between WTP and socio-demographic factors such as gender, race, age, occupation and length of residency, whereas for education level and income, the result shows insignificant relationship. The perception factors indicate that lack of rehabilitation skill is the most serious risk perceived in KSP and KSR, while lack of money for fund allocation is the most serious risk perceived in KG. Based on the findings of the in-depth interview, it was concluded that to encourage conservation activities among the community, local mangrove rehabilitation association should be established. The result found that the history, economy and capability building are the three new variables in the psychological factors, while the geographical factor is the new variable in the institutional factor that influenced the CBC establishment. The findings suggest that the establishment of local mangrove rehabilitation association through CBC approach in the study areas should take into consideration on strengthening the capability building, proposed adaptive co-management framework, increase participation and awareness and increase skills and knowledge among the young generation.

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