



الجامعة الإسلامية العالمية ماليزيا  
INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA  
بِوَسِيْلَتِي اِسْلَامٌ اِنْبَارٌ اِيْجِبًا مِلْدِيْنَا

APPLICATION OF COASTAL AREA  
MANAGEMENT IN PROMOTING SUSTAINABLE  
TOURISM: A CASE STUDY OF BATU FERRINGHI,  
PENANG, MALAYSIA

BY

KAREEM ADEL ISMAIL

A dissertation submitted in partial fulfilment of  
the requirements for the degree of Master of Urban  
and Regional planning

Kulliyyah of Architecture and Environmental Design  
International Islamic University  
Malaysia

SEPTEMBER 2009

## **ABSTRACT**

This study focuses on the application of coastal area management (CAM) in promoting sustainable tourism in an important tourism destination in Malaysia like Batu Ferringhi area, which is suffering from rapid decline in tourist arrival rate accompanied by quick degradation of coastal environmental resources. Therefore, the study aims to achieve some objectives which are a) studying current condition of CAM and sustainable tourism in the study area, b) identifying the relationship between CAM and sustainable tourism, c) to identify opportunities and obstacles facing the area and lastly to formulate some recommendations to achieve sustainable tourism. In order to achieve these objectives mixed research method was used to combine qualitative and quantitative data to reach strong evidence findings based on various data collection methods like interview session with key officers in different agencies ruling coastal area, supported by questionnaire survey to get the perceptions of locals and tourists about coastal area, as well document analysis and physical observation. Based on data collected from these methods, analysis was made using SWOT analysis and comparison with international indicators. Which led to a number of findings showing that there is a weak level of implementation of CAM in the study area, and existence of a strong relationship between this weak practice of CAM which causes environmental degradation in coastal resources and the quick decline of tourism activity in the area, and that sustainable tourism could not be achieved unless there is a high degree of environmental protection for coastal resources in such tourism destination. These important findings led to formulation of some recommendations to enhance practice of CAM and to promote sustainable tourism, like establishment of an integrated body with strong enforcement and monitoring facilities for better management of activities in coastal area, preparation of an coastal management act to protect coastal areas, and preparation of an tourism action plan aiming to achieve sustainable tourism in Batu Ferringhi. The study could be useful for researchers interested in CAM and sustainable tourism as it covers the wide perspective of their application in tourism destinations.

## ملخص البحث

تركز الدراسة على تطبيقات فكرة إدارة المناطق الساحلية ودورها في تشجيع السياحة المستدامة في وجهة سياحية هامة في ماليزيا مثل منطقة باتو فرينجي. خاصة أن المنطقة تعاني من انخفاض حاد وملحوظ في معدل السياح الزائرين يتبعه أيضا أنحدار سريع في الموارد البيئية الساحلية. وبالتالي فإن الدراسة تسعى لتحقيق مجموعة من الأهداف وهي كالتالي أ) دراسة الوضع الراهن لتطبيق فكرة إدارة المناطق الساحلية والسياحة المستدامة في منطقة الدراسة، ب) تحديد أوجه العلاقة بين إدارة المناطق الساحلية والسياحة المستدامة، ج) تحديد الفرص والعوائق التي تواجه منطقة الدراسة وأخيرا تشكيل مجموعة من التوصيات لتحقيق فكرة السياحة المستدامة. وفي سبيل تحقيق هذه الأهداف تم استخدام طريقة البحث المزدوج والتي تجمع ما بين المعلومات الكمية والكيفية للوصول لنتائج مدعومة بأدلة قوية بناءً على مجموعة من طرق جمع المعلومات مثل المقابلات مع بعض الموظفين في الإدارات المسؤولة عن المنطقة الساحلية، مدعماً بالاستبيان الذي تم توزيعه على السكان المحليين والسائحين لمعرفة أنطباعتهم وأرائهم تجاه الإدارة الساحلية في منطقة الدراسة وكذلك التحليل الدقيق للوثائق والملاحظة الميدانية. بناءً على المعلومات المجمعة تم التحليل عن طريق المقارنة بالمعايير العالمية وكذلك تحليل الفرص والتهديدات ونقاط الضعف والقوة. وصولاً لمجموعة من النتائج المتمثلة في وجود تطبيق ضعيف لفكرة إدارة المناطق الساحلية في منطقة الدراسة، ووجود علاقة قوية ومباشرة بين التطبيق الضعيف لفكرة إدارة المناطق الساحلية، الذي يؤدي إلى الأنحدار البيئي للموارد الساحلية وبين التراجع السريع للنشاط السياحي بالمنطقة، كذلك فإن تطبيق فكرة السياحة المستدامة غير ممكن بدون وجود درجة عالية من الحماية البيئية للموارد الساحلية في مثل تلك المقاصد السياحية. وهذه النتائج قادت لتشكيل مجموعة من التوصيات لتحسين مستوى تطبيق فكرة إدارة المناطق الساحلية وتشجيع تطبيق فكرة السياحة المستدامة مثل تشكيل كيان مدمج قوي للتطبيق ومتابعة الأنشطة في المنطقة الساحلية و تجهيز قانون لإدارة المناطق الساحلية بهدف حمايتها وكذلك تجهيز خطة عمل سياحية تهدف لتحقيق فكرة السياحة المستدامة في منطقة باتو فرينجي. وبالتالي فإن الدراسة قد تكون مفيدة للباحثين المهتمين بإدارة المناطق الساحلية و السياحة المستدامة.

## APPROVAL PAGE

I certify that I have supervised and read this study and that in my opinion, it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a thesis for the degree of Master of Urban and Regional Planning.

.....  
M.Zainora Asmawi  
Supervisor

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a thesis for the degree of Master of Urban and Regional Planning.

.....  
Mohamed Zin Mohamed  
Examiner

This dissertation was submitted to the Department of Urban and Regional Planning and is accepted as a partial fulfilment of the requirements for the degree of Master of Urban and Regional Planning.

.....  
Rustam Khairi Zahari  
Head, Department of Urban  
And Regional planning

This dissertation was submitted to the Kulliyyah of Architecture and Environmental Design and is accepted as a partial fulfilment of the requirements for the degree of Master of Urban and Regional Planning.

.....  
Mansor Ibrahim  
Dean, Kulliyah of Architecture  
And Environmental Design

## DECLARATION

I hereby declare that this dissertation is the result of my own investigations, except where otherwise stated. I also declare that it has not been previously or concurrently submitted as a whole for any other degrees at IIUM or other institutions.

Kareem Adel Ismail

Signature.....

Date.....

**INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA**

**DECLARATION OF COPYRIGHT AND AFFIRMATION  
OF FAIR USE OF UNPUBLISHED RESEARCH**

Copyright © 2009 by Kareem Adel Ismail. All rights reserved.

**APPLICATION OF COASTAL AREA MANAGEMENT IN PROMOTING  
SUSTAINABLE TOURISM: A CASE STUDY OF BATU FERRINGHI,  
PENANG MALAYSIA**

No part of this unpublished research may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without prior written permission of the copyright holder except as provided below.

1. Any material contained in or derived from this unpublished research may only be used by others in their writing with due acknowledgement.
2. IIUM or its library will have the right to make and transmit copies (print or electronic) for institutional and academic purposes.
3. The IIUM library will have the right to make, store in a retrieval system and supply copies of this unpublished research if requested by other universities and research libraries.

Affirmed by Kareem Adel Ismail

.....  
Signature

.....  
Date

I dedicate this work to my beloved family:

To my symbol in life my father who I am proud to be his son,

And to my most beloved person in the world my mother whose kindness is unlimited,

And to my beloved country EGYPT which will always be my most beloved place.

## ACKNOWLEDGEMENTS

Thanks to Allah (s.w.t) for giving me strength to complete this work as a part of God worshipping through knowledge collection.

My sincere thanks to my family because of their strong support in all times of depression, weakness and despair, converting them to be will, determination and hope. so I really thank them because without their help I would not achieve this research or any thing in my life, hoping that this little effort would be as a reward for their support regardless the final result, and I hope insallah to always be a source of pride for them.

I would like to thank my supervisor Mdm. Zainora for her guidance and valuable comments during research period, also her patience and determination to make this research in the highest quality. I would like also to extend my thanks to Prof. Che Musa as his early guidance was really inspiring through this research, also I thank all my professors and lecturers who have enlightened me by knowledge and supported me in all courses during my master degree study in IIUM.

I would like to thank all the governmental officers and NGO's in Penang state who have helped me in collecting data for this research, and specially Ir. Hj. Mohd. Abu Bakar Othman Deputy State Director of Department of Irrigation and Drainage Penang for his support. I am also thankful for all people of Batu Ferringhi area for their cooperation in survey.

Lastly I would like also to thank my dear friends and country mates Omar Tarek , Mohamed Fouaed, Ahmed Hafez and Shady for their support and to my friends and colleagues in MURP program especially Salami Azziz, Moataz Munjid, Wahyu Hidayat, Adel, Abd Elrhman and Mousa Zamir for their warm feelings which make the trip easy for me as well all my undergraduate students that I shared study with them for their warm feelings hoping for them all success in their life.

I thank you all for your support, hoping to you all success and happiness in your life.



# TABLE OF CONTENTS

|                            |       |
|----------------------------|-------|
| Abstract.....              | ii    |
| Abstract in Arabic.....    | iii   |
| Approval Page.....         | iv    |
| Declaration.....           | v     |
| Copyright Page.....        | vi    |
| Dedication Page.....       | vii   |
| Acknowledgements.....      | viii  |
| Table of Contents.....     | ix    |
| List of Tables.....        | xiii  |
| List of Figures.....       | xv    |
| List of Abbreviations..... | xviii |

|                                                    |          |
|----------------------------------------------------|----------|
| <b>CHAPTER ONE: INTRODUCTION .....</b>             | <b>1</b> |
| 1.1 Introduction .....                             | 1        |
| 1.2 Context of the Study.....                      | 2        |
| 1.2.1 International Perspective .....              | 2        |
| 1.2.2 Malaysia Perspective .....                   | 4        |
| 1.3 Problem Statements.....                        | 6        |
| 1.4 Goal and Objectives .....                      | 7        |
| 1.5 Research Questions .....                       | 7        |
| 1.6 Scope of Study .....                           | 8        |
| 1.6.1 Coastal Area Management (CAM).....           | 8        |
| 1.6.2 Tourism Aspect .....                         | 8        |
| 1.7 Significance of the Study.....                 | 10       |
| 1.7.1 Significance Towards the Community.....      | 10       |
| 1.7.2 Significance Towards the Environment.....    | 11       |
| 1.7.3 Significance Towards the Tourism Sector..... | 11       |
| 1.8 Organisation of the Study.....                 | 12       |
| 1.9 Study Limitations.....                         | 14       |
| 1.10 Conclusion.....                               | 15       |

|                                                                                                       |           |
|-------------------------------------------------------------------------------------------------------|-----------|
| <b>CHAPTER TWO: REVIEWING LITERATURES ON COASTAL AREA<br/>MANAGEMENT AND SUSTAINABLE TOURISM.....</b> | <b>16</b> |
| 2.1 Introduction.....                                                                                 | 16        |
| 2.2 Coastal Area Management.....                                                                      | 16        |
| 2.2.1 Definitions and Principles.....                                                                 | 17        |
| 2.2.2 Processes and Functions.....                                                                    | 22        |
| 2.2.3 Characteristics of Coastal Area Management.....                                                 | 28        |
| 2.2.4 Users in Coastal Area Management.....                                                           | 33        |
| 2.2.5 The Associated Problems in Tourism Destinations<br>in the Context of CAM.....                   | 35        |

|       |                                                                                             |    |
|-------|---------------------------------------------------------------------------------------------|----|
| 2.2.6 | Assessment Principles and Indicators of Integrated Coastal Area Management Achievement..... | 38 |
| 2.3   | Sustainable Tourism.....                                                                    | 43 |
| 2.3.1 | Definition of Sustainable Tourism.....                                                      | 44 |
| 2.3.2 | Significance of Coastal Tourism.....                                                        | 46 |
| 2.3.3 | Relationship Between Coastal Planning and Management in Sustainability Framework.....       | 48 |
| 2.3.4 | Assessment Principles and Indicators of Sustainable Tourism Achievement.....                | 53 |
| 2.4   | Conclusion.....                                                                             | 59 |

**CHAPTER THREE: RESEARCH METHODOLOGY.....61**

|         |                                                 |    |
|---------|-------------------------------------------------|----|
| 3.1     | Introduction.....                               | 61 |
| 3.2     | Methodology and Research Phases.....            | 61 |
| 3.2.1   | Research Phases.....                            | 62 |
| 3.2.1.1 | Introduction and Background Study.....          | 62 |
| 3.2.1.2 | Data Collection.....                            | 63 |
| 3.2.1.3 | Data Analysis.....                              | 63 |
| 3.2.1.4 | Recommendations and Conclusions.....            | 63 |
| 3.2.2   | Research Approach.....                          | 66 |
| 3.3     | Methods of Data Collection.....                 | 69 |
| 3.3.1   | Document Analysis.....                          | 69 |
| 3.3.1.1 | Visit to Agencies.....                          | 69 |
| 3.3.1.2 | Library and Internet Search.....                | 71 |
| 3.3.1.3 | Books, Journals and Articles.....               | 71 |
| 3.3.2   | Interview Session and Questionnaire Survey..... | 72 |
| 3.3.2.1 | Interview Session.....                          | 73 |
| 3.3.2.2 | Questionnaire Survey.....                       | 76 |
| 3.3.3   | Physical Observation.....                       | 78 |
| 3.4     | Methods Used in Data Analysis.....              | 82 |
| 3.5     | Conclusion.....                                 | 83 |

**CHAPTER FOUR: OVERVIEW OF STUDY AREA.....84**

|         |                                                 |     |
|---------|-------------------------------------------------|-----|
| 4.1     | Introduction.....                               | 84  |
| 4.2     | Location and Profile of Batu Ferringhi.....     | 85  |
| 4.2.1   | Location of Batu Ferringhi.....                 | 85  |
| 4.2.2   | Profile of Batu Ferringhi.....                  | 87  |
| 4.3     | The Practice of Coastal Area Management.....    | 93  |
| 4.3.1   | Coastal Area Management Plans and Programs..... | 94  |
| 4.3.2   | Institutional Framework Ruling CAM.....         | 96  |
| 4.3.3   | Development Plans.....                          | 100 |
| 4.3.4   | Current Land Use Pattern.....                   | 105 |
| 4.3.4.1 | Residential Use.....                            | 107 |
| 4.3.4.2 | Commercial Use.....                             | 108 |
| 4.3.4.3 | Tourism Use.....                                | 108 |
| 4.3.5   | Effect of Land Use Types on Coastal Area.....   | 109 |
| 4.4     | Tourism Activity and Development.....           | 111 |

|       |                                       |     |
|-------|---------------------------------------|-----|
| 4.4.1 | Tourist Arrival.....                  | 111 |
| 4.4.2 | Tourism Coastal Activities.....       | 113 |
| 4.4.3 | Tourism Development and Services..... | 114 |
| 4.4.4 | Tourism Attraction.....               | 118 |
| 4.5   | Conclusion.....                       | 120 |

**CHAPTER FIVE: ANALYSING THE PRACTICE OF CAM  
AND SUSTAINABLE TOURISM.....**

|         |                                                                                                   |     |
|---------|---------------------------------------------------------------------------------------------------|-----|
|         |                                                                                                   | 121 |
| 5.1     | Introduction.....                                                                                 | 121 |
| 5.2     | Investigating the Implementation of Coastal Area Management.....                                  | 123 |
| 5.2.1   | Availability of Management Plans.....                                                             | 125 |
| 5.2.2   | Coastal Management Programs.....                                                                  | 130 |
| 5.2.3   | Agencies Cooperation.....                                                                         | 135 |
| 5.2.3.1 | Existing Condition of Agencies Cooperation.....                                                   | 135 |
| 5.2.3.2 | Future Perspective of Agencies Cooperation.....                                                   | 137 |
| 5.2.4   | Community and NGO's Role.....                                                                     | 141 |
| 5.2.4.1 | Existing Condition of Community Participation.....                                                | 142 |
| 5.2.4.2 | Future Perspective of Community Participation.....                                                | 143 |
| 5.2.5   | Effect on Natural Resources.....                                                                  | 144 |
| 5.2.5.1 | Water Quality.....                                                                                | 145 |
| 5.2.5.2 | Current Pollution Problems.....                                                                   | 146 |
| 5.2.5.3 | Erosion and other Effects.....                                                                    | 148 |
| 5.2.6   | Findings on Implementation of Coastal Area Management.....                                        | 149 |
| 5.3     | Meeting the Objectives of Sustainable Tourism Concept.....                                        | 157 |
| 5.3.1   | Natural Tourism Resources.....                                                                    | 159 |
| 5.3.2   | Tourist Arrival.....                                                                              | 160 |
| 5.3.3   | Users Perception on CAM and Sustainable Tourism.....                                              | 162 |
| 5.3.3.1 | Local Residents Perception on CAM and Tourism.....                                                | 163 |
| 5.3.3.2 | Tourists Perception on CAM and Tourism.....                                                       | 168 |
| 5.3.4   | Relationship with Policies and Plans.....                                                         | 174 |
| 5.3.5   | Findings on Achievement of Sustainable Tourism.....                                               | 175 |
| 5.4     | Opportunities and Obstacles Facing CAM<br>and Sustainable Tourism Practice in Batu Ferringhi..... | 180 |
| 5.4.1   | SWOT Analysis.....                                                                                | 180 |
| 5.4.2   | Significant Problems.....                                                                         | 182 |
| 5.5     | The Relationship between Coastal Area Management<br>and Sustainable Tourism .....                 | 183 |
| 5.5     | Conclusion.....                                                                                   | 184 |

**CHAPTER SIX: CONCLUSION AND RECOMMENDATIONS.....**

|       |                                              |     |
|-------|----------------------------------------------|-----|
| 6.1   | Introduction.....                            | 188 |
| 6.2   | Recommendations.....                         | 190 |
| 6.2.1 | Recommendations for CAM Application.....     | 190 |
| 6.2.2 | Recommendations for Sustainable Tourism..... | 193 |
| 6.3   | Further Research.....                        | 195 |
| 6.4   | Concluding Remarks.....                      | 196 |

BIBLIOGRAPHY.....199

APPENDIX I: Interview Form.....204

APPENDIX II: Interview Questions for Various Departments .....207

APPENDIX III: Questionnaire for Tourists.....212

APPENDIX IV: Questionnaire for Local Residents.....214

APPENDIX V: Physical Observation Checklist.....216

APPENDIX VI: Evaluation of Planning Guidelines.....218

## LIST OF TABLES

| <u>Table No.</u> |                                                                                  | <u>Page No.</u> |
|------------------|----------------------------------------------------------------------------------|-----------------|
| 2.1              | Tourism use in CAM from perspective of many scholars                             | 33              |
| 2.2              | Threats facing coastal ecosystems and its drivers                                | 35              |
| 2.3              | Main indicators for assessment of ICAM                                           | 41              |
| 2.4              | Main phases in development of coastal management                                 | 48              |
| 2.5              | WTO core sustainable tourism indicators                                          | 57              |
| 2.6              | NEST core sustainable tourism indicators                                         | 58              |
| 3.1              | The visited agencies and the data collected from each place                      | 69              |
| 3.2              | The sources used in library search technique and the outcome                     | 71              |
| 3.3              | Main sources of data from books, journals and articles                           | 72              |
| 3.4              | The interviewees and their positions and agencies                                | 75              |
| 3.5              | Summary of all methods for data collection used in this research                 | 79              |
| 4.1              | Timur Laut district and Penang state population (2001-2005)                      | 89              |
| 4.2              | List of responsibilities for all agencies in Penang                              | 99              |
| 4.3              | Effect of different types of land use on coastal area of Batu Ferringhi          | 109             |
| 4.4              | International and local tourist arrival to Penang Island between years 2001-2006 | 110             |
| 4.5              | Number of tourist arrival to Penang according to country                         | 111             |
| 4.6              | Number of hotels and rooms in beach area in Penang Island                        | 114             |
| 5.1              | The main rivers passing Batu Ferringhi and its environmental problems            | 131             |
| 5.2              | Types of data and its sources from different agencies                            | 138             |
| 5.3              | Agencies cooperating in beach beautification project                             | 140             |
| 5.4              | The water sampling measures of rivers in Batu Ferringhi                          | 145             |

|      |                                                                            |     |
|------|----------------------------------------------------------------------------|-----|
| 5.5  | Analysis of the stages of coastal management programs                      | 150 |
| 5.6  | Analysis of the main factors of existing coastal management plans          | 151 |
| 5.7  | Analysis of the main factors of agency cooperation                         | 153 |
| 5.8  | Analysis of the main factors of community and NGO's role                   | 155 |
| 5.9  | Analysis factors of CAM degree of application in Batu Ferringhi            | 155 |
| 5.10 | Problems of coastal resources and its effect on tourism                    | 159 |
| 5.11 | Used sustainable tourism indicators                                        | 175 |
| 5.12 | Results of comparing sustainable tourism indicators with current condition | 177 |
| 5.13 | SWOT analysis                                                              | 181 |

## LIST OF FIGURES

| <u>Figure No.</u> |                                                                            | <u>Page No.</u> |
|-------------------|----------------------------------------------------------------------------|-----------------|
| 1.1               | The scope of study and relation between study main parts                   | 9               |
| 2.1               | The six main stages of CAM process and programs formulation                | 22              |
| 2.2               | Integrated continuous management cycle                                     | 25              |
| 2.3               | Degrees of integration in coastal management                               | 31              |
| 2.4               | Continuum of policy integration in coastal management                      | 31              |
| 2.5               | The domains of sustainability                                              | 51              |
| 2.6               | Sustainable and unsustainable approaches to coastal resource use           | 52              |
| 3.1               | Outline of the research phases and the outcome                             | 62              |
| 3.2               | The study process                                                          | 65              |
| 3.3               | Relationship between different steps of research                           | 66              |
| 3.4               | Relationship between different interviewees in relation to study objective | 73              |
| 4.1               | Location map of Penang Island within South East Asia region                | 86              |
| 4.2               | The location map of Batu Ferringhi area in Penang state                    | 88              |
| 4.3               | Map of the main natural features in Batu Ferringhi                         | 92              |
| 4.4               | Picture of a constructed water pond                                        | 94              |
| 4.5               | Picture of JPS information sign                                            | 95              |
| 4.6               | Different departments related to CAM                                       | 98              |
| 4.7               | Map of the tourism active zones in Penang state (mainland and island)      | 104             |
| 4.8               | Map of the main land use pattern in Batu Ferringhi area                    | 106             |
| 4.9               | Map of the famous hotels in Batu Ferringhi                                 | 116             |
| 4.10              | Picture of chalets near by the sea                                         | 117             |

|      |                                                                          |     |
|------|--------------------------------------------------------------------------|-----|
| 4.11 | Picture of night market stools occupying road pavement                   | 119 |
| 5.1  | Relationship between CAM application and resources sustainability        | 123 |
| 5.2  | Perspectives of analysis for application of CAM concept                  | 124 |
| 5.3  | Problems in the sub cell of Batu Ferringhi                               | 131 |
| 5.4  | Hierarchy of implementation for plan projects                            | 140 |
| 5.5  | The summery of preparation of one community meeting                      | 143 |
| 5.6  | Picture of sewage wastes polluting rivers, which downstream in sea       | 146 |
| 5.7  | Picture of polluted river crossing residential area                      | 146 |
| 5.8  | Picture of horse feces in the beach                                      | 147 |
| 5.9  | Picture of polluted drainage canal                                       | 147 |
| 5.10 | Picture of river mouth polluting the sea side                            | 149 |
| 5.11 | Factors affecting sustainable tourism achievement in this study          | 157 |
| 5.12 | Level of education of local residents                                    | 163 |
| 5.13 | Occupation distribution of local residents                               | 164 |
| 5.14 | Perception of local residents about pollution problems                   | 165 |
| 5.15 | Perception of local residents regarding coastal management               | 167 |
| 5.16 | Perception of locals about level of tourism services                     | 166 |
| 5.17 | Locals perception on role of planning into keeping area's sustainability | 167 |
| 5.18 | Country of origin for visiting tourists                                  | 170 |
| 5.19 | Age structure of tourists                                                | 170 |
| 5.20 | Tourists perception about level of tourism services                      | 171 |
| 5.21 | Perception of tourists regarding environmental problems                  | 171 |
| 5.22 | Perception of tourists about area's environmental problems               | 172 |
| 5.23 | Overall satisfaction of tourists from their visit to Batu Ferringhi      | 174 |



|      |                                                                                           |     |
|------|-------------------------------------------------------------------------------------------|-----|
| 5.24 | Suggestions of tourists regarding making Batu Ferringhi a sustainable tourism destination | 174 |
| 5.25 | Relationship between CAM application and tourism activity                                 | 183 |

## LIST OF ABBREVIATIONS

|        |                                                     |
|--------|-----------------------------------------------------|
| CAM    | Coastal Area Management                             |
| CZM    | Coastal Zone Management                             |
| DANCED | Danish Cooperation for Environment and Development  |
| DID    | Department of Irrigation and Drainage               |
| DOE    | Department of Environment                           |
| EIA    | Environmental Impact Assessment                     |
| EPU    | Economic Planning Unit                              |
| FAO    | Food and Agriculture Organization of United Nations |
| GIS    | Geographical Information System                     |
| MM2H   | Malaysia My Second Home                             |
| MPPP   | Majlis Perbandaran Pulau Pinang                     |
| NCIA   | Northern Corridor Implementation Authority          |
| NEST   | Northern Environment for Sustainable Tourism        |
| NGO's  | Non Governmental Organisations                      |
| ICAM   | Integrated Coastal Area Management                  |
| ICAMS  | Integrated Coastal Area Management Systems          |
| ICOM   | Integrated Coastal and Ocean Management             |
| ICZM   | Integrated Coastal Zone Management                  |
| ICZMP  | Integrated Coastal Zone Management Project          |
| ISMP   | Integrated Shoreline Management Plan                |
| IUCN   | International Union for Conservation of Nature      |
| JKR    | Jabatan Kerja Raya Malaysia                         |

|        |                                                                  |
|--------|------------------------------------------------------------------|
| PDC    | Penang Development Corporation                                   |
| SERI   | Social Economic Research Institute                               |
| TCPD   | Town and Country Planning Department                             |
| TDR    | Tourist Destination Region                                       |
| TGR    | Tourist Generating Region                                        |
| UNEP   | United Nations Development Program                               |
| UNESCO | United Nations Educational, Scientific and Cultural Organisation |
| UNWTO  | United Nations World Tourism Organization                        |

# CHAPTER ONE

## INTRODUCTION

### 1.1 INTRODUCTION

Tourism has been converted from being a limited leisure activity for certain sections of the community during late nineteenth century and early twentieth century to be now in the third millennium a major international industry, where countries consider it as one of the pillars of its economy. This worldwide industry has generated huge investments by billions of dollars during the last 30 years (Cooper *et.al*, 2005).

These investments have been converted to structure massive mass of physical development with different forms like resorts, hotels, tourism facilities and recreational areas. Which are mostly located nearby attractive tourism resources either natural like beaches, forests and preserved areas or near man made resources like historical, religious and heritage places. Depending on these resources, one of the most important aspects of tourism industry is the coastal tourism which depends on coastal resources such as beaches.

This coastal tourism carries special importance as it is the widest distributed type of tourism in the world, as more than three-quarters of world population live in coastal regions (Vallega, 1999), and more than 60% of world tourism is related to coastal resources (Cooper *et.al*, 2005). Therefore, many countries totally depend on coastal tourism as its major contributor in economy like Maldives or Bahamas Islands.

This economic importance has encouraged countries to invest more in tourism and rapid coastal development began to increase in the last 20 years through

constructing of many tourism projects which have been described in one terminology as “Tourism Development”.

This tourism development has positive economic impact on community conditions. However, it has also some negative environmental impacts on tourism natural resources like pollution problems, these negative impacts reflect the importance of coastal area management concept as a mean to protect these sensitive tourism resources.

Therefore, this research studies and examines the application of Coastal Area Management (CAM) concept within the coastal area of Batu Ferringhi especially in environmental, institutional and development aspects. Relating this application to sustainable tourism concept and investigating ways to develop it in order to fully apply CAM concept and make Batu Ferringhi a sustainable tourism destination.

## **1.2 CONTEXT OF THE STUDY**

The context of the study begins with the international perspective of tourism sector then focuses on the lower level, covering Malaysian perspective and the selected study area, i.e. Batu Ferringhi, Penang.

### **1.2.1 International Perspective**

Tourism sector is considered as an important industry which is vital for any economy especially for developing countries. According to the statistics of the World Travel and Tourism Council (WTTC, 2003) , tourism activity is expected to generate more than 250 million employments by 2010, also the economies of some countries totally depend on tourism industry such as Maldives. In other countries, tourism activity represents a major part of their economies such as Egypt, Turkey, and Malaysia. As

tourism is now the second largest growing sector in the world economy contributing by more than 10% of the world economy according to United Nations World Tourism Organization latest statistics (UNWTO, 2008).

This high economic benefit encouraged countries to invest more in tourism development sector, through constructing of entire infrastructure for this activity as near as possible to the tourism resources. The absence of effective management tools and lack of wise planning decisions result in generating major environmental problems in these sites such as pollution of coastal areas. Such environmental problems forced planners and decision makers to use tools like coastal area management to minimize the negative impacts and eliminate it in the future.

From another perspective, tourism has close relationship with sustainability as sustainable development became the main concern of planners and decision makers since Earth Summit in Brazil, 1992. Since then, researchers and professionals worldwide tried to build a framework that adapts tourism activity with the maximum degree of environmental protection of tourism resources. This effort done by researchers has successfully produced new ideas for tourism activity like sustainable tourism and eco-tourism, especially after the Johannesburg Summit in 2002 which reviewed sustainable development achievement around the world.

These new ideas became more effective and it has been converted to be more sustainable and implementable programs and strategies to achieve millennium goals and realise sustainable development with special focus on fast growing tourism industry especially in coastal areas, which represents an important portion of the main tourism attractions all over the world (Biederman, 2007).

### **1.2.2 Malaysia Perspective**

In view of its high economic importance, as many developing countries like Malaysia realised a rapid tourism development in the last 25 years, aiming at benefiting from the advantage of having natural resources like beaches. Malaysia has quite attractive tourism coastal resources in its peninsula and also in Sabah and Sarawak states in Borneo Island. Malaysia also depends on tourism activity as its second largest contributor to country national income with 89 billion Malaysian Ringgit annual income which represents 13.2 % of the Malaysian Growth Domestic Product (GDP) according to world trade and tourism council statistics (WTTC, 2008).

Therefore, many efforts have been made to attract more tourists by building tourism infrastructures through the construction of accommodation facilities like hotels, motels and other tourism facilities along these coasts, to accommodate visiting tourists nearby the tourism attractions. However, this rapid coastal development concentrated on natural resources raised many questions about managing these natural resources in order to enhance tourism activity and optimum use of tourism facilities.

At the same time, there is a need to keep the sustainability of resources, to achieve what is called “sustainable tourism” an idea that could affect positively the economy of any developing country like Malaysia, and will certainly contribute in solving community problems like poverty and unemployment. In addition, Malaysia through its vision to be a developed country by year 2020 has set some goals regarding developing tourism activity, with full consideration to the environmental protection of its natural tourism resources.

Therefore, all national policies and plans set goals and strategies to preserve these valuable natural resources from its highest level in documents like National Physical Plan (NPP), Ninth Malaysia Plan (9MP), and National Urbanization Policy

(NUP) till local and special area plan level. These strategies have been formulated to create guidelines and management plans like National Coastal Zone Policy (NCZP) which has been finished in 1999, and some states shoreline management plans.

These management plans consist of general recommendations and strategies on how to deal with these sensitive areas, but some states like Penang have gone further by creating their own detailed management plan for coastal areas like Integrated Coastal Zone Management (ICZM) prepared in 1998. Despite all these efforts, these sensitive areas still face some major problems (Asmawi, 2008).

As the current situation in Malaysia like many other developing countries that the government is supporting and investing in tourism sector as a way to decrease financial crisis effects on the country economy. So there is a real need to regulate and organise this tourism sector and all its development, in a way which ensure the continuity of economic development of this sector, but in the same time without any negative impact on environment, and with full preservation of the sustainability of these sensitive coastal resources which are the main source of tourism attraction.

Therefore, this study focuses on studying the coastal area of Batu Ferringhi in Penang state to identify the relationship between coastal management and tourism sector in this sensitive area considered as major tourism destination in Malaysia.

Major pollution problems are facing the environment in Batu Ferringhi, especially the tourism coastal resources which could affect the resources sustainability, despite the increase in the number of tourists visiting the area annually in the last few years (Penang web portal, 2008).