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**ENVIRONMENTAL ASPECTS  
IN THE LOCAL PLANS IN SABAH:  
PERCEPTION OF SELECTED STAKEHOLDERS  
AND CASE STUDY**



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UNIVERSITI MALAYSIA SABAH

**THIS DISSERTATION IS SUBMITTED IN PARTIAL  
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## DECLARATION

The matters in this dissertation are original except for quotations, excerpts, summaries and references, which have been duly acknowledged.



CAROLYN TAY @ CAROLYN CLEMENT

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*"The earth does not belong to us; we belong to the earth.  
All things are connected like the blood which unites one family.  
All things are connected whatever befalls the earth  
befalls the sons and daughters of the earth.  
We did not weave the web of life; we are merely a strand in it.  
Whatever we do to the web; we do to ourselves."*

**Chief Seattle**

## **ABSTRACT**

### **ENVIRONMENTAL ASPECTS IN THE LOCAL PLANS IN SABAH: PERCEPTION OF SELECTED STAKEHOLDERS AND CASE STUDY**

*The existing land use plan preparation process in the state today is mainly tailored more towards economic and social development based on the assumption of continuing growth. The landuse policies and strategy had been always focused on how much land is available for future development needs. As for environmental concerns it is only treated a sector by itself. Conservation measures on protection of existing natural areas and environmentally sensitive sites are only put emphasis on a small portion in the plan. Therefore, there is a need that environmental inputs or concern should be integrated into the process of preparing land use plans. The objective of this study is mainly to determine the extensiveness of the environmental aspects in the existing local plans' content prepared by the Town and Regional Planning Department. The second objective of this study is then to propose newly environmental aspects to be incorporate into the existing local plan. The data collected for this study is done through questionnaire and interviews from the government and private sectors that have been involved in the local plan preparation process in the state. The final result of this study shows that, the existing environmental aspects in the prepared local plans are not enough and need improvement. Several newly environmental aspects have been proposed to be add on into the content of the local plan prepared by the Town and Regional Planning Department. Besides that, this study also indicates that in planning with foresight, environmental aspects should permeate every stage of planning and it should be dealt with in conjunction with social and economic issues. Environmental aspects in local plans should be seen in a holistic manner and at macro perspective. In other words, planning and implementation of all work concerned with the environment or the natural resources must be holistic and multi-sectoral, emphasizing a proactive approach at macro level rather than a reactive approach at micro and specific levels.*

## ABSTRAK

### **ASPEK-ASPEK ALAM SEKITAR DALAM PELAN TEMPATAN DI NEGERI SABAH: PERSEPSI RESPONDEN TERPILIH DAN KAJIAN KES**

Perancangan guna tanah memainkan peranan yang penting dalam mempromosikan pembangunan mampan dalam perancangan guna tanah di negeri Sabah. Ia dilakukan dengan penyediaan pelan-pelan pembangunan seperti Pelan Struktur dan Pelan Tempatan. Pelan-pelan pembangunan ini merupakan panduan utama dalam perancangan guna tanah dan juga pengurusan alam sekitar di Negeri Sabah. Namun, dengan melihat kepada proses penyediaan Pelan Tempatan sedia ada di negeri ini, adalah didapati bahawa perancangan yang dilakukan adalah lebih tertumpu kepada pembangunan ekonomi. Aspek alam sekitar dalam Pelan Tempatan yang disediakan tidak dititikberatkan sepenuhnya dan hanya merangkumi skop yang kecil. Contohnya, aspek landskap yang ada hanya mementingkan nilai estetik untuk kawasan-kawasan tertentu sahaja seperti di jalan raya. Dengan itu, adalah penting aspek-aspek alam sekitar diambil kira dan diaplikasikan dalam Pelan-Pelan Tempatan tersebut. Salah satu objektif utama kajian ini adalah untuk mengenalpasti aspek-aspek alam sekitar yang ada di dalam Pelan Tempatan sedia ada yang disediakan oleh Jabatan Perancangan Bandar dan Wilayah Negeri Sabah samada mencukupi dan menyeluruh atau perlu diperbaiki. Objektif kedua kajian ini adalah mencadangkan aspek-aspek alam sekitar baru yang perlu ditambah untuk dimasukkan ke dalam kandungan Pelan Tempatan sedia ada. Hasil daripada kajian ini didapati bahawa aspek-aspek alam sekitar adalah tidak mencukupi dan ia perlu diperbaiki dan ditambah. Berdasarkan keputusan tersebut, beberapa aspek yang berkaitan dengan alam sekitar seperti pengurusan sumber air telah dicadangkan untuk dimasukkan ke dalam kandungan Pelan Tempatan yang disediakan oleh Jabatan Perancangan Bandar dan Wilayah Negeri Sabah. Selain itu, kajian ini juga menunjukkan bahawa dalam melakukan perancangan jangka panjang, aspek alam sekitar haruslah dilakukan dalam semua peringkat perancangan dan harus diintegrasikan dengan aspek-aspek ekonomi dan sosial. Pengurusan alam sekitar haruslah dilakukan secara menyeluruh dan proaktif yang melibatkan semua sektor.



## TABLE OF CONTENTS

| CHAPTER          | ITEM  | PAGE          |
|------------------|---|---------------|
|                  | <b>DECLARATION</b>  | <i>i</i>      |
|                  | <b>ACKNOWLEDGEMENT</b>                                    | <i>ii</i>     |
|                  | <b>ABSTRAK</b>  | <i>iii</i>    |
|                  | <b>ABSTRACT</b>   | <i>iv</i>     |
|                  | <b>CONTENTS</b>   | <i>v-viii</i> |
|                  | <b>LIST OF TABLES</b>                                     | <i>ix-x</i>   |
|                  | <b>LIST OF FIGURE</b>                                     | <i>xi</i>     |
|                  | <b>LIST OF APPENDIX</b>                                   | <i>xii</i>    |
| <b>CHAPTER 1</b> | <b>INTRODUCTION</b>                                       | <b>1</b>      |
|                  | 1.1 Introduction  | 1             |
|                  | 1.2 Problem Statement                                     | 3             |
|                  | 1.3 Objectives of the Study                               | 4             |
|                  | 1.4 Scope of Study  | 4             |
|                  | 1.5 Significance of Study                                 | 5             |
| <b>CHAPTER 2</b> | <b>LITERATURE REVIEW</b>                                  | <b>6</b>      |
|                  | 2.1 Introduction  | 6             |
|                  | 2.2 Environment and Planning                              | 7             |
|                  | 2.3 Sustainable Development- The Global Context           | 12            |
|                  | 2.4 Sustainable Development- The Malaysian Context        | 16            |
|                  | 2.5 Land Use Planning                                     | 19            |
|                  | 2.6 Land Use Planning in Malaysia                         | 22            |
|                  | 2.7 The Malaysia Statutory Planning System                | 24            |
|                  | 2.8 Environmental Aspect in Land Use Planning in Malaysia | 25            |

|      |  |    |
|------|--|----|
| 2.9  | Land Use Planning in Sabah                         | 27 |
| 2.10 | The Sabah Statutory Planning System                | 29 |
| 2.11 | Environmental Aspect in Land Use Planning in Sabah | 30 |
| 2.12 | The Development Plan: Local Plan                   | 32 |
| 2.13 | Environmental Aspects in Local Plan in Sabah       | 34 |

### **CHAPTER 3 METHODS AND MATERIALS 38**

|     |                                     |    |
|-----|-------------------------------------|----|
| 3.1 | Introduction                        | 38 |
| 3.2 | Research Design                     | 38 |
| 3.3 | Research Methodology                | 39 |
| 3.4 | Research Data                       | 39 |
| 3.5 | Research Measurement and Instrument | 41 |
| 3.6 | Data Collection                     | 42 |
| 3.7 | Data Analysis                       | 42 |

### **CHAPTER 4 ANALYSIS AND DISCUSSION 45**

|       |  |    |
|-------|--|----|
| 4.1   | Introduction   | 45 |
| 4.2   | Data Collection  | 45 |
| 4.3   | Demographic Profile of Respondents   | 46 |
| 4.3.1 | Job Description of the Selected Respondents                                  | 46 |
| 4.3.2 | Gender of the Selected Respondents   | 47 |
| 4.3.3 | Age Group of the Selected Respondents  | 47 |
| 4.3.4 | Years of Working Experience  | 48 |
| 4.4   | Understanding the Environment of Sabah                                       | 49 |
| 4.4.1 | Perception of Respondents towards the Present Environment Condition of Sabah | 49 |
| 4.4.2 | The Importance of Looking After the Environment of Sabah                     | 50 |
| 4.4.3 | The Environmental Issues/Problems in Sabah                                   | 52 |



|                  |   |           |
|------------------|---|-----------|
| 4.4.4            | The Importance of Incorporating the Term "Sustainable Development" into the Development Agenda in Sabah | 59        |
| 4.5              | Respondents' Participation in the Local Plan Preparation Process  | 62        |
| 4.5.1            | Respondents' Awareness on The Environmental Aspects in the Existing Local Plan                          | 62        |
| 4.5.2            | The Extensiveness of the Environmental Aspects in the Existing Local Plan                               | 63        |
| 4.5.3            | The Sufficiency of Environmental Aspects in the Existing Local Plan                                     | 64        |
| 4.5.4            | The Needs of Incorporating Environmental Aspect Into Local Plan   | 65        |
| 4.6              | Environmental Aspects that should be Incorporated Into Local Plan                                       | 66        |
| 4.7              | Local Plan as a Tool in Managing the State's Environment  | 79        |
| 4.8              | Challenges/Problems in Applying Environmental Planning in Sabah   | 82        |
| 4.9              | Environmental Aspect in the Selected Existing Local Plan. Case Study: Tawau Local Plan                  | 89        |
| 4.10             | Chapter's Conclusion  | 94        |
| <b>CHAPTER 5</b> | <b>CONCLUSION AND RECOMMENDATIONS</b>   | <b>96</b> |
| 5.1              | Overall Findings and Summary  | 96        |
| 5.2              | Recommendations   | 98        |
| 5.2.1            | Basic Principles in Applying Environmental Planning   | 99        |
| 5.2.2            | The Tools Needed in Environmental Planning  | 100       |
| 5.2.3            | Legal Framework on Environmental Planning   | 102       |
| 5.3              | Future Works  | 103       |
| 5.4              | Conclusions   | 103       |

|                   |            |
|-------------------|------------|
| <b>REFERENCES</b> | <b>105</b> |
|-------------------|------------|

|                 |            |
|-----------------|------------|
| <b>APPENDIX</b> | <b>111</b> |
|-----------------|------------|

|                                |     |
|--------------------------------|-----|
| Appendix 1: Questionnaire Form | 112 |
|--------------------------------|-----|



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|            | <b>LIST OF TABLES</b>   | <b>PAGE</b> |
|------------|---|-------------|
| Table 2.1  | Environmental Aspects Provided by Selected Local Plan in The State                | 36          |
| Table 3.1  | Selected Respondents for the Study  | 40          |
| Table 4.1  | Job Description of the Selected Respondents                                       | 46          |
| Table 4.2  | Gender of the Selected Respondents  | 47          |
| Table 4.3  | Age Group of the Selected Respondents   | 48          |
| Table 4.4  | Number of Years Working in Each Field   | 48          |
| Table 4.5  | The Perception of Respondents toward the Present Condition of Sabah's Environment | 49          |
| Table 4.6  | The Importance of Taking Care of the Environment                                  | 50          |
| Table 4.7  | Environmental Issues/Problems the State are Facing                                | 53          |
| Table 4.8  | Incorporating "Sustainable Development" into the Development Agenda of Sabah      | 60          |
| Table 4.9  | Respondents' Participation, Comments and Knowledge on Local Plan                  | 62          |
| Table 4.10 | Respondents' Awareness on the Environmental Aspects in the Existing Local Plan    | 63          |
| Table 4.11 | Extensiveness of the Environmental Aspects in the Local Plan                      | 63          |
| Table 4.12 | The Sufficiency of Environmental Aspects in the Local Plan                        | 64          |
| Table 4.13 | The Needs of Incorporating Environmental Aspects Into Local Plan                  | 65          |
| Table 4.14 | Environmental Aspects to be Incorporated into the Existing Local Plan             | 67          |
| Table 4.15 | The Top Five Environmental Aspects that Need to be Incorporated into Local Plans  | 78          |
| Table 4.16 | Local Plan as a Tool in Managing the Environment                                  | 79          |
| Table 4.17 | The Importance of Environmental Planning in Land Use Planning                     | 81          |
| Table 4.18 | Challenges/Problems in Applying Environmental Planning                            | 83          |

|            |   |    |
|------------|---|----|
| Table 4.19 | Environmental Aspects in the Tawau Local Plan                       | 90 |
| Table 5.1  | Environmental Aspects That Need to be Incorporated Into Local Plans | 96 |



|            | LIST OF FIGURE                     | PAGE |
|------------|------------------------------------|------|
| Figure 3.1 | Flowchart of the Study’s Framework | 44   |



| LIST OF APPENDIX              | PAGE |
|-------------------------------|------|
| Appendix 1 Questionnaire Form | 112  |



# CHAPTER 1

## INTRODUCTION

### 1.1 Introduction

Environmental priorities are becoming more important in most of the development agendas in every country today. The need to understand the environment is essential as it contribute to a great role in the existence of human kind. The environment is exploited by human kind since before the rise of early civilization. The thought of the environment as "unlimited" has caused human to continue to use the environment as long as their wish which caused greater problem. Pollution, declining of resources, destruction of forest and global warming are signs that the environment is deteriorating at an accelerating phase.

The ignorance towards the importance of environment to human kind continues for many centuries as man continue to exploit the earth resources in an unprecedented manner. The environment has always been critical to life but concerns over the balance between human life and the environment started since the 1950s but not much effort is done. Only during the 1970s that the conservation and development are two sides of the same coin



became widespread and get much attention especially in the developed country.

In 1972, the report of the Club of Rome addressed the importance of environment to human kind for the first time in a systematic and consistent way, resulting in the well known book 'The limits to growth' (Donnella, 1972), and later "Beyond the Limits (Donnella, 1992). The political response to this challenge was formulated in 1987 by the World Commission on Environment and Development in the so-called Brundtland report 'Our Common Future' (World Commission on Environment and Development (WCED), 1987). They introduced the concept of sustainable development, as a means to guarantee acceptable living conditions for the present as well as for future generations (Brundtland, 1987).

Sustainable development simply means improving the quality of human life while living within the carrying capacity of supporting ecosystems. The foundations of sustainable development are respect and concern for people and ecosystem. Development is likely to be sustainable if it improves the quality of human life and it conserves the vitality and diversity of the world's natural system (Brundtland, 1987).

Sabah is blessed with abundant of earth resources. However, recent years has shown that Sabah is being developed at an unprecedented rate with dire consequences for the environment. The state is becoming more industrialized and urbanized where environmental concerns are not being considered before development is done.

The need to understand the environment is very clear and it is essential as it contribute a role in land-use planning. It is a great challenge to planners as to support the demand for enhanced environmental quality and

translate it into clearly defined and realisable programmes of action in land use planning.

The town and regional planning system has always play an important part to be one of the key instrument in delivering land use and development objectives that are compatible with the aim of sustainable development in Sabah. The existing local plan preparation process prepared by the Town and Regional Planning Department in Sabah is mainly tailored more towards economic and social development based on the assumption of continuing growth. The land use policies and strategy had been always focused on how much land is available for future development needs.

As for environmental concerns it is only treated as a sector by itself and only issues relating to local environmental quality, landscape enhancement and access to open space are addressed. Landscaping recommendations are cater more for aesthetic treatment and beautification instead of habitat improvement or regeneration of degraded landscape.

It is high time that the plan preparing process by the Town and Regional Planning Department in Sabah is to be reviewed where conventional method in preparing local plans should be altered and changed into a more flexible and "environmental friendly" manner where environmental inputs or concern is integrated into the process of preparing local plans in the state.

## **1.2 Problem Statement**

Environmental aspects are not effectively incorporated into the preparation of local plans by the Town and Regional Planning Department in Sabah.

### **1.3 Objectives of the Study**

The objectives of this study are:-

- 1.3.1 To determine the extent of environmental aspects considerations in the existing local plans based on the perception of selected stakeholders in Sabah and case study; and
- 1.3.2 To propose environmental aspects that should be incorporated into the existing local plan's content.

### **1.4 Scope of Study**

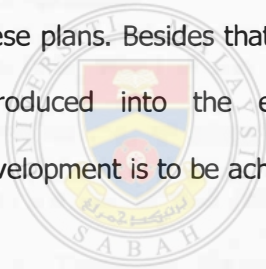
Since the introduction of "sustainable development" in 1987 in the Brundtland Report, many countries in the world are making efforts to balance development and environment. One of the instruments is through the preparation of development plans such as Structure Plan and Local Plan as these plans is essential for promoting sustainable development in each country. The local plan is one of the main instruments that guide the development in the state. Therefore it is important that environmental aspects are incorporate into this plan in promoting more sustainable development and use of the natural resources.

This study is mainly to examine the extensiveness of environmental aspects in the existing local plan prepared by the Town and Regional Planning Department of Sabah. As one of the main development guidelines in the state, it is important to know whether environmental aspects are incorporated into the existing plans are sufficient or need improvement. If the environmental aspects are not sufficient and need to be improved, this study then will propose new environmental aspects that should be incorporated into local plans to be prepared by the department.

### 1.5 Significance of Study

The planning system plays a vital part in promoting sustainable land use pattern and used of resources in the state. This study intends to analyze and promote a better understanding and the need to integrate environmental aspect in the planning system through the preparation of development plans such as the local plans. This development plans especially local plans prepared by the Town and Regional Planning Department has an impact on the state's natural resources, and these plans would influence the subsequent decision made for development.

Therefore, it is essential that the objectives of sustainable development are tightly integrated into the economic and social objectives of these plans. Besides that, it is high time that environmental planning is being introduced into the existing planning approach today if sustainable development is to be achieve in the state of Sabah.



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## CHAPTER 2

### LITERATURE REVIEW

#### 2.1 Introduction

The final report of the Sabah Conservation Strategy published in 1992 has identified that all aspects of the environment in Sabah are linked intimately with the use of two primary resources: land and natural resources such as forest. Therefore, there is an urgent need for planning and firm control of land and natural resources allocation on a national, regional and local basis, while integrating the needs of all sectors (Sabah Conservation Strategy, 1992).

The planning system plays an important part in promoting sustainable land use patterns and the use of the resources in the state. Development plans such as the structure plan, district and local plans plays a vital part in setting development path in the state. The local plan is a statement of detailed policies and site-specific proposals that sets the path for development over a period of time. It is therefore that this plan not only set out the strategic framework for the use of land and direction of development in the

state, it is also important that it can deliver environmentally sustainable development strategies whilst at the same time maintaining the environment.

This chapter will basically discuss how environmental planning started globally, in Malaysia and also Sabah. It will also discuss on the general land use planning in Malaysia and Sabah as well as the environmental aspects in the planning system particularly in local plans in the state.

## **2.2 Environment and Planning**

Since the beginning of human existence in this planet, humans have been dependent on their surrounding environment for resources. As society advanced, human tried to separate themselves from the natural burdens and hazards of life common to all other living being but still human remains part of the natural environment. Human depends on the natural systems for the necessities of life – clean air and water, food, and health – as well as connected to their evolutionary heritage (Randolph, 2004).

Environment is defined as “the quality of the air, water and land in or on which people, animals and plants live” (Cambridge Dictionary, 1995). Environment is also defined as the surroundings or the natural conditions in which people, plants and animals live (*Kamus Dewan*, 1992). In Ecology, the term “environment” is defined as the complex of climatic, biotic, social and edaphic factors that acts upon an organism and determines its form and survival. It also includes everything that may directly affect the metabolism or behavior of a living organism or species, including light, air, water, soil, and other living beings (Molles, 2002).

It is obvious that, the definition for ‘environment’ can differ according to various disciplines. In general, environment is all encompassing. It includes



not just the natural resources but also the social and economic resources and the inter-relationships between these. It is a very comprehensive, dynamic and complex resource system.

Planning put simply is 'how to achieve a goal (s)' which has/have been determined by policy. In more detail it is the process or method of looking at where people have been, where they are now and where they would like to be in the future and how they intend to get there. The process may relate to a large number of different issues (both internal and external), various time periods (short and long term) and various types of large and small scale projects and plans. The process also involves the following steps which are analyzing what the present problems are (strengths and weaknesses), gathering information on the subject area, analyzing what the opportunities might be based on this information, deciding on goals and objectives, and preparing various strategies (or scenarios) for the future.

These strategies then form the basis of the development (or action) plan. Policy is a course of action adopted (e.g. by a national government, a government department, a political party, a business, etc.) which is intended to influence and determine decisions, actions, and plans (Hamilton, 1981). As a whole, planning is a process for determining future appropriated actions to achieve a goal or a series of goals through a sequence of actions.

Randolph (2004) stated that managing the relationship between human and the environment has been a continuous requirement and responsibility for human and society. Environmental management is the means of controlling or guiding human-environment interactions to protect and enhance human health and welfare and environment quality. These



interactions can affect human welfare and the environment in the following four ways:

1. The environment poses certain natural hazard to human society.
2. Society-generated pollution impacts human health through the environment.
3. Society exploits economically important natural resources at unsustainable rates.
4. Pollution and overuse undermine productive natural systems and ecosystems.

Management aims to control the interactions of people and the environment, and management itself involves the interaction of people and institutions. It is clear that environmental planning and management is a scientific, technical field but also a political driven by the process of social and institutional interplay. Planning and management involves people interacting in a competition of ideas and values, shaping the technical, institutional, legal and policy means of managing the environment (Randolph, 2004).

In general, environmental planning applies the process of planning to environmental protection and problem solving. This may entail any of the human-environment interaction as mentioned earlier: natural hazards, human environmental health, natural resource use, productive natural systems, and ecosystems. Environmental planning can be "reactive", "proactive" or "integrative". Reactive measures try to correct prior environmental damages, for example, remediation of old waste sites, reclamation of abandoned mined lands, or cleanup of polluted waterways. Proactive measures are taken explicitly to enhance environmental quality, for example, land use controls to preserve wildlife habitats and wetlands, and protecting water catchment area.

Integrative environmental planning involves early and substantive consideration of environmental and social factors in the formulation of development plans and projects like a highway and subdivision. Not only is it less costly and more effective to consider environmental factors early in the development process, but this integration is essential to achieve the objective of sustainable development (Randolph, 2004).

The term environment in planning has always been questionable and unclear as commonly it is employed to imply the economic, socio-cultural and physical attributes of the scenario in which daily activities take place. During the early planning legislation, the term amenity is broadly used to signify pleasant surrounding. Consequently the environment in this physical sense becomes a central preoccupation of the planning system (Fauziah Johar, 2003).

The introduction of sustainable development through the Brundtland Report in 1987 has raised challenges to the planning community in how best sustainable development concepts can be developed into the planning system. In the context of environment, "sustainable" is the maintenance of the environmental capacities which is normally measured by recognized indicators such as resource stocks, pollution levels and habitat types (Fauziah Johar, 2003).

The difficulty with sustainability as a concept and practice is that measuring environmental capacities is not straightforward (Blowers, 1992). Several approaches have been developed to operationalize the concept. Healey and Shaw (1993), shows that the following areas of action should be considered in formulating the local planning strategy to achieve a more radical approach to environmental sustainability: