

**Architectural Response to Environmental Laws with Special
Reference to Sustainable Development**

A Dissertation

**Submitted to the Department of Architecture of the
University of Moratuwa in partial fulfillment of the**

**Requirements for the degree of
Master of Science**

In

Architecture

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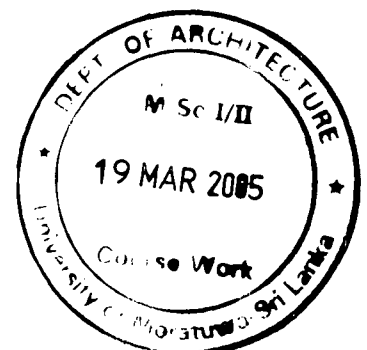
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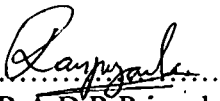
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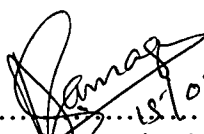


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DECLARATION

I declare that this dissertation represent my own work, except where due acknowledgment is made, and that it has not previously include in a thesis, dissertation or report submitted to this university or to any other university or any other institute for degree diploma or other qualification.


.....
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.....18/03/08
(signed supervisor)
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ACKNOWLEDGEMENT

I wish to acknowledge with deep sense of appreciation and sincere gratitude to those who had helped me in the presentation of this essay. Architect Vidura Sri Nammuni, Head of the Architectural department, Architect Upendra Rajapalsha, Co-ordinator of dissertation, Architect Arosh Gamage tutor of the dissertation, Architect Prassanna Kulathilaka senior lecture Department of Architecture University of Moratuwa for all the guidance, encouragement with constructive comments and advise through the project and our year masters Architect Gamini Weerasinghe, Architect Jayanath Silva for valuable assistance.



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Special thanks should be given to the staffs of Urban Development Authority, National Housing Development Authority, Central Environment Authority, Environment Found for the valuable documents, information and library facilities.

Last by no means least I special acknowledge my parents and my sisters and brother for their invaluable support throughout my life.

ABSTRACT

This study is an attempt to understand the broad scope of sustainable development : in terms of Architectural response to the environmental laws. Sustainable development is only a notion, which has been defined and addressed in different manners by different professions. Although it has many definitions it is believed that it has been meant for a good health of world development. Within the process of sustainable development, construction industry plays a major role. As a master of the building construction industry, Architect has to associate not only with production of shelter but also with environment. Therefore developments of Architectural philosophies are much more concerned about the environment. On the other hand environmental law helps to safeguard the environment. The environmental law concepts and management procedures are used to evaluate the development activities related to environment. These concepts may help to achieve the goal of the sustainable development. Environmental law, one of the key areas that architects are concerned about with more or less coincidence with design strategies. Some statutory provisions of environmental law have been implemented as mandatory requirement and guide lines to Architects to follow.



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Therefore in this dissertation the idea is to identify the developed concepts and principles which lead to sustainable development, in both Architectural and environmental law and its impacts on Architecture. Furthermore it deals with compatibility and flexibility of environmental law with its applicability on current Architectural requirements.

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INTRODUCTION

INTRODUCTION

The word 'sustainability' has become a catch phrase in modern society. The emergence of the environmental movement has brought this concept to the forefront of environmental policy. Sustainable development has many meanings and definitions depending on ones perspective. Through out the history Architecture as well as environmental law tried to establish sustainable development through several approaches. But regardless of the different perspectives and approaches, all advocates of sustainable development have one common general goal; the capacity of mankind to maintain itself over time.

Observation

Thoughtout the history, people have been involved in the modification of their environment. But in the present day, with the bulk of development programs, there is a big tendency to move towards the unauthorized areas such as riverbanks, beaches, water bodies and urban reservation areas. These projects affect not only to the physical environment but also have an impact on the societies and intergeneration equity.

According to the Rio declaration (1992) principle three "*The right to development must be fulfilled in such a way that it should not hinder the development and environmental needs of present and future generations*". Because of that, Architects also have a responsibility to protect the environment simultaneously with the developments. The part of safeguarding the quality of built environment a country falls on architect. Also they respond to legal frame works in many ways. The commonly used method of safeguarding the quality of built environment is the rules, regulations and concepts combined with the environmental law.

Criticality

In today's world architecture does not end with the built form – architects have the power to shape the environment and give society the framework for the way of life. Therefore architects should respond to the environment and to the spirit of place. Architects should make the least damage to the context while protecting the rights of

present and future generations. Therefore the design solution and architectural response must be compatible with the legal frame work.

Therefore it is important to study the architectural response to environmental law with reference to sustainable development.

Scope and Limitations

Therefore the intention of this dissertation is to study how environmental law contributes to the Architectural design as a modifying factor, its compatibility and flexibility in terms of Architectural thinking process. Therefore the stuff will be based on

- Existing theories and strategies of Architecture, developed towards the sustainable development.
- Understanding the basics of principles of laws, concepts and its ability to guide the architectural design to sustainable development.
- How the environmental laws become a modifying factor to Architectural design.
- The compatibility and flexibility of environmental law with the Architectural thinking.
- Architect's role towards sustainable development.



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Method of Study

The study will concentrate on case studies and theoretical background of both Architectural and environmental law. The case studies will be used to analyzed the practical application of law with Architectural and sustainable goals. It can also be need to understand the present day necessity of interconnection within the development of Architectural and environmental law concepts.

Therefore the first chapter will discuss about the theoretical background of developed architectural concepts which lead towards sustainable design. The second chapter is based on the basic environmental law concepts and principles and standards. It further discusses under

sustainable design principles to understand the importance of the environmental law to the Architectural design.

The case studies are based on three Eco tourist projects in sensitive areas which environmental law directly applies. Case study one Kandalama hotel is a mass tourism project, close to the inland water body which evaluate under environmental impact assessment report. This helps to understand the impact of EIA, the main method of controlling adverse environmental impacts, and its impacts on Architectural design. Second case study Ranweli Hotel was established before the EIA process is introduced. It follows the Architectural principle of Green Principles. This helps to understand the application of Architectural theories on environmentally sensitive areas close to the coastal belt. The third case study is based on a small scale Eco tourist project in forest area which is designed under eco sensitive design principles. It further helps to understand the architect's sensitivity and ability to achieve sustainable development through design strategies without participation of legal guide lines.

The last chapter includes in analytical study and evaluation of environmental law and Architectural concepts in terms of sustainable development. With the studied facts under case studies further discuss the compatibility and flexibility of environmental law with Architectural thinking. It helps to understand the contribution and impact of environmental law to Architecture. Therefore the study may help to understand the present day necessities of wholistic approach of Architecture and environmental law concepts to achieve sustainable development.