

**ECO- SENSITIVE ENERGY DIMENTION OF
HIGH-RISE BUILDINGS IN TROPICAL
CLIMATE.**



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S.M.M.K. SENEVIRATHNE.
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*The dissertation presented to the Faculty of Architecture of the
University of Moratuwa, Sri Lanka for the Final examination in M.Sc.
(Architecture)*



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Declaration

I declare that this dissertation represents my own work, except where due acknowledgement is made, and that it has not been previously included in a thesis, dissertation or submitted to this University or to any other institution for a degree, diploma or other qualification.

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“I see the future of tropical high rise buildings not as “energy – champers” but rather as “energy towers” that are self sustaining energy to the surrounding neighborhood. The towers should be the energy source of district. Imagine whole of Asia tropical cities being covered by these “energy towers” it will be new architecture a form still not been before.”

(Tan Kok Means. Asian Architecture. PP205)

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	Pg. No
CONTENTS	
ACKNOWLEDGEMENTS	
ABSTRACT	
<u>INTRODUCTION</u>	
0.1 .The study	ix
0.2 .The issue	ix
0.3 .Intention	x
0.4 .Scope and limitation	x
0.5 .Methodology	xi
<u>CHAPTER ONE</u>	
Urban built environment.	1
1.1. Urban layouts.	2
1.2. Urban sections.	6
1.3. Open space.	7
1.4. Built forms.	10
1.4.1. Low rise buildings.	11
1.4.2. High rise buildings.	12
<u>CHAPTER TWO</u>	
High-rise buildings as a major component of urban built environment.	13
2.1. Concept of high rises	13
2.2. Historical development of high rise buildings.	17
2.3. Evolution of high-rise buildings.	21
2.4. Ecological impact of high rise buildings.	26
<u>CHAPTER THREE</u>	
The concept of eco-sensitive energy dimension.	27
3.1. General over view of eco-sensitivity	27
3.2. Eco- sensitive architecture.	28
3.2.1. Conservation energy.	30
1. Micro climate.	31

2. Building form and fabric.	32
3. Plants and machinery.	33
3.3. Eco-sensitive energy dimension in high-rise buildings in tropical countries.	34
3.3.1. Design principle for tropical high-rise building.	37
3.3.1.1. Micro climate.	37
3.3.1.2. Building form.	41
3.3.1.3. Building fabric.	42
3.3.1.4. Building section.	47

CHAPTER FOUR

Eco-sensitive energy dimension of high-rise building as a future generation to Sri Lanka.	48
4.1. .Analysis of eco-sensitive energy dimension of tropical high rise building.	48
4.1.1. Case study one-Minara Mesiniaga, Headquarters Building.	49
4.1.2. Case study two-Bank of Ceylon, Headquarters Building.	54
4.1.3. Case study three- Menara UMNO, office building complex.	56
4.2. Eco-sensitive energy dimention in high-rise buildings for Sri Lanka as a futureristic solution.	59
4.3. Eco-sensitive thinking in building regulation	60
4.4. Changing way of thinking of society about low energy building for future.	60
a. As a user.	61
b. As a town and country planner.	61
c. As a urban designer.	62
d. As a architect.	62
e. As a policy maker.	63
CONCLUSION	64
BIBILIOGRAPHY	68



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ABSTRACT

ABSTRACT

One of the greatest challenges in South Asia is to adapt building types evolved in temperate climates to the rigors of tropical climate. High-rise buildings specially adapted to the regional climate and open-air lifestyle would punctuate the pattern, providing urban landmarks and focal points for more intensive activities.

The precedents for adapting the tower type to location and climate are few and far between, but not without significance in this context. After air-conditioning became standard, this was common for high-rise buildings in the tropics to be protected by an external sunscreen. Therefore high rises become more expensive structures as a result of that.

Architects try to find out new concepts of high rise for development of future cities though, studying various methods, such as sustainability or eco- sensitivity.

“I believe that this decision will help to control the process of construction of high-rise buildings in the capital city, sustain the integrity of the Vilnius city panorama, and ensure the quality of life for Vilnius citizens. Investors intending to build new high-rise buildings in Vilnius will have to offer exclusive architectural solutions for the city, without making a negative effect on the environment”. (*Mayor Artūras Zuokas, 2006*)

Considering the present situation the most prominent problem is design eco-sensitive high rise buildings in local context, because Sri Lanka are seriously neglected about environmental aspects. Although the principles of designing with climate are relatively advance for low rise and medium rise buildings attention and research has to be direct to high rise buildings. Sri Lanka is a country, which is in tropics buildings have to be designed with greater concern with climate. Natural ventilation and lighting become major design component in building design within topics to over come impaction the economy and on urban environment.

This is a most suitable time to be activating eco-sensitive concepts for the future generations.



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S.M.M.K. Senevirathne.

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