# CRITICAL ANALYSIS OF THE RELATIONSHIP BETWEEN CRIME, SAFETY AND THE PHYSICAL ENVIRONMENT IN NEW LOW-INCOME, HIGH-RISE HOUSING IN COLOMBO

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Dissertation submitted in partial fulfillment of the requirements for the Master of Urban Design

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# Declaration of the candidate and supervisor

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#### **Abstract**

In Sri Lanka after year 2000, Many Low-income, high-Rise housing developments have being built to reclaim some of the scenic places in the city and to satisfy the housing demand for the growing Urban population. These houses are mainly concentrated in the north and east of Colombo metropolitan area. Due to the high concentration of low-income houses in these areas, and poor maintenance etc., these LIHRHs have developed a stigma. Most number of Crime Incidents of the city are also reported from these areas. Due to these Many residents who can afford it, move out of these newly built LIHRH worsening the situation due to these vacant premises been rented by gang leaders and drug lords. In the past Internationally, due to such problems, many such housing developments were demolished.

Extensive research work and theories were also developed in other countries as to how to avoid such crime breeding grounds in housing developments. Of these defensible space by Oscar Newman is the most accepted and widely adopted in controlling crime via environmental design. He discusses how this can be achieved under four main categories. First is via increasing territorial control by residents over their premises, second by increasing the natural surveillance of residents over their premises, third by improving the image of the housing development and thereby attracting users of higher income categories to the area and fourth how the proximity to safe places can increase the safety of the LIHRH. Jane Jacobs and some others theoreticians have also talked about different aspects that contribute towards reducing crime in housing schemes such as the presence of children playing in sidewalks and shops that keep natural surveillance over the streets in a neighborhood.

As a measuring tool for Crime occurrences and safety levels in selected case studies four main headings of Territoriality, Natural Surveillance, Image and proximity to safe and non-safe places were adopted. Under these other 29 subcategories were utilized to measure crime and safety levels in the case studies. Using these, Objectives of the study are to see whether there is a relationship between built form and crime in Sri Lankan context and if there is to see what can be done to the built form and the environment to reduce the crime rates and increase the safety in LIHRH.

Selected three case studies are Muwaduru Uyana, Sirimuth Uyana and Randiya Uyana. Ninety residents from the 3 case studies answered a questionnaire and drew mind maps of safe and unsafe areas of their LIHRH in the given maps. There were interviews of residents, UDA officials and police personnel and photographic survey was also conducted see how the three case studies fared in terms of the four developed main categories for crime and safety. In addition to these, a cartographic analysis was also carried out about the nature of built form. Crime data relating to the three case studies were obtained from the relevant police stations.

Police data indicated that Muwaduru Uyana was highest in crime second is Randiya Uyana and Sirimuthu Uyana had a smaller number of crimes. Sirimuthu Uyana was considered as the safest by residents. Survey observations also supported this data. Therefore, it was concluded that

- a. When the territoriality, Natural surveillance of the residents increases over their premises and image of the improves and LIHRH is located in proximity to safe areas crime decreases –Inversely Proportional relationship
- When the territoriality, Natural surveillance of the residents increases over their premises and image of the improves and LIHRH is located in proximity to safe areas Safety Increases –Proportional Relationship

Based on survey findings, possible improvements to the built form and surroundings of the three existing case studies and future recommendations to adopt in LIHRH were proposed under the four main categories of Territoriality, Natural Surveillance, Image and proximity to safe and non-safe areas. Under these 4 categories, 33 recommendations were proposed.

#### Acknowledgements

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# LIST OF ABBREVIATIONS

 $LIHRH-Low-income, high-rise\ housing$ 

 $CPTED-Crime\ prevention\ through\ Environmental\ design$ 

# CHAPTER BREAKDOWN

#### Introduction

Background to the study

Research Gap

Research question

Research aim and objectives

Research methodology

Research Scope and Limitations

## Chapter 01- Low income high, rise housing

- 1.1 Global perspectives of the Low- income high rise housing.
- 1.2 Evaluation of high-rise Housing development in Sri Lanka.
- 1.3 What is low-income housing
- 1.4 Problems associated with Low-income high-rise housing

## **Chapter 02 – Crime and Safety**

- 2.1 What is crime
- 2.2 What is Safety
- 2.3 What is physical environment
- 2.4 Existence of a relationship between crime and safety and physical environment.
- 2.5 Defensible theory
- 2.6 Other theories views on crime and safety

# Chapter 03 – Theoretical framework on crime and safety

- 3.1 appropriateness of the existing theories
- 3.2 Derived theorical framework for testing crime and safety
- 3.3 Methodology

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- 4.1 Identification of case studies
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  - 4.1b Sirimuthu Uyana
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- 4.2 Surveys carried out
- 4.3 Muwaduru Uyana
  - 4.3a- descriptive surveys, questioners
  - 4.3b- photographic surveys
  - 4.3c- Interviews and observation
  - 4.3d- Mind maps
- 4.4 Sirimuthu Uyana
  - 4.4a- descriptive surveys, questioners
  - 4.4b- photographic surveys
  - 4.4c- Interviews and observation
  - 4.4d- Mind Maps
- 4.5 Randiya Uyana
  - 4.5a- descriptive surveys, questioners
  - 4.5b- photographic surveys
  - 4.5c- Interviews and observation
  - 4.5d- Mind maps

- 4.6 Analysis of maps and plans
  - 4.6a Territoriality
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  - 4.6d Proximity safe or non-safe places

# Chapter 05 – overall analysis and recommendations

- 5.1 Police Crime data
- 5.2 Analysis of Surveys- framing the problem areas
- 5.3 Analysis of Surveys Solutions and pit falls to avoid
- 5.4 Recommendations for the improvement of existing 3 case studies
  - 5.4a. Recommendations for Muwaduru Uyana
  - 5.4b. Recommendations for Sirimuthu Uyana
  - 5.4c. Recommendations for Randiya Uyana
- 5.5 Recommendations for future developments.

## **Conclusions**