

**A FRAMEWORK FOR IMPLEMENTING AGENCIES
TO ENHANCE EFFECTIVE COMMUNITY
PARTICIPATION IN PUBLIC CONSTRUCTION
PROJECTS IN SRI LANKA**

Jallini Theivendran

(179015L)

Degree of Master of Science in Project Management

Department of Building Economics

University of Moratuwa

Sri Lanka

April 2023

**A FRAMEWORK FOR IMPLEMENTING AGENCIES
TO ENHANCE EFFECTIVE COMMUNITY
PARTICIPATION IN PUBLIC CONSTRUCTION
PROJECTS IN SRI LANKA**

Jallini Theivendran

(179015L)

Dissertation submitted in partial fulfillment of the requirements for the degree Master
of Science in Project Management

Department of Building Economics

University of Moratuwa

Sri Lanka

April 2023

DECLARATION

I declare that this is my own work and this dissertation does not incorporate without acknowledgement any material previously submitted for a Degree or Diploma in any other University or institute of higher learning and to the best of my knowledge and belief it does not contain any material previously published or written by another person except where the acknowledgement is made in the text.

Also, I hereby grant to University of Moratuwa the non-exclusive right to reproduce and distribute my dissertation, in whole or in part in print, electronic or other medium. I retain the right to use this content in whole or part in future works (such as articles or books).

Signature:

Date:

The above candidate has carried out research for the Masters Dissertation under my supervision.

Name of the supervisor: Dr. Sachie Gunathilake

Signature of the supervisor:

Date:

ABSTRACT

A Framework for Implementing Agencies to Enhance Effective Community Participation in Public Construction Projects in Sri Lanka

Construction projects are often very complex, competitive in nature, and managing the influence of multiple stakeholders with varying interests and conflicting requirements. Therefore, developing a strong and effective relationship with the key stakeholders including local communities has recognized as an essential element of public projects. Several researchers have identified the importance of stakeholder management in construction projects. However, very few researchers have explicitly recognized “community” as one of the complex stakeholders and stressed the importance of community participation for the effective delivery of construction project. Specifically, the involvement of local communities in infrastructure provision has not been considered adequately in the context of developing countries. Moreover, there is no ideal local community based participatory approach is available among the various stakeholder approaches. Therefore, this research was undertaken to develop a framework for implementing agencies to enhance effective community participation in public construction projects in Sri Lanka.

This research has adopted a mixed method sequential research approach to develop a framework for implementing agencies to enhance effective community participation in public construction project. Both questionnaire survey and semi-structured interviews were used for the data collection. The research analysis and findings were revealed that 13 community participation activities are important for effective community participation and identified the factors affecting the practice of community participation under four major categories. Further, the analysis recommended eight strategies for the effective community participation in public construction project namely: transparency in community participation process, create community awareness, implement community responsible entities, develop ownership-based approach, conduct assessments through government organizations, educate construction industry professionals, conduct post community participation evaluation and establish government audits for community participation.

With the research findings, the study was then developed a framework for implementing agencies to enhance effective community participation in public construction projects in Sri Lanka.

Keywords: Community Participation, Framework, Public Projects

DEDICATION

I dedicate this Dissertation

To

My family

ACKNOWLEDGEMENT

Foremost, I would like to express my sincere gratitude to my supervisor Dr. Sachie Gunathilake for the continuous support of my research on “A Framework for Implementing Agencies to Enhance Effective Community Participation in Public Construction Projects in Sri Lanka”, for her patience, motivation, enthusiasm, and immense knowledge. Her guidance helped me in all the time of research and writing of this dissertation. The completion of this research would not have been possible without her conscientious guidance and encouragement.

Besides my supervisor, I would like to thank, Ch.QS. Dr. Anuradha Waidyasekara, Head, Department of Building Economics, Ch.QS. Indunil Senaviratne, Programme Director - MSc. in Project Management, senior lecturers, lecturers and all other staff members of the Department of Building Economics for their encouragement, immense assistance, and excellent support.

Next I would like to convey my grateful acknowledgement is made to construction industry professionals for supporting me in order to reach the aim of this research by spending their valuable time to review and fill up questionnaire and extending kind cooperation through knowledge generating interviews.

Last but not the least, I would like to thank my family members, my colleagues and many others, for willingly giving me their utmost support, advice and continuously motivating me to carry out this piece of work successfully.

T. Jallini

April, 2023

TABLE OF CONTENTS

DECLARATION	i
ABSTRACT	ii
DEDICATION	iii
ACKNOWLEDGEMENT	iv
TABLE OF CONTENTS.....	v
LIST OF FIGURES	x
LIST OF TABLES	xi
LIST OF ABBREVIATIONS.....	xii
CHAPTER ONE	1
1.0 INTRODUCTION	1
1.1 Background	1
1.2 Research Problem	4
1.3 Aim and Objectives.....	5
1.4 Methodology.....	6
1.5 Scope and Limitations.....	6
1.6 Chapter Breakdown.....	7
CHAPTER TWO	8
2.0 COMMUNITY PARTICIPATION IN CONSTRUCTION PROJECTS...8	
2.1 Introduction	8
2.2 Public Construction Projects in Sri Lanka	8
2.3 Stakeholders of Construction Projects	9
2.3.1 Types of Stakeholders.....	10

2.3.2 External Stakeholders	11
2.4 Local Communities	12
2.4.1 Communities - A Construction Perspective	13
2.4.2 Impacts of Construction Activities on Local Community	15
2.4.3 Community based Actions against the Negative Impacts of Construction Activities.....	19
2.5 Community Participation	21
2.5.1 Evolution of Community Participatory Processes.....	22
2.5.2 Community Participatory Methods and Techniques	25
2.6 Stages of Community Participation throughout the Lifecycle of a Construction Project.....	27
2.7 Factors Affecting the Effective Community Participation in Construction Industry	35
2.8 Strategies to Enhance Effective Community Participation	38
2.9 Chapter Summary.....	40
CHAPTER THREE	41
3.0 RESEARCH METHODOLOGY	41
3.1 Introduction	41
3.2 Research Process	41
3.3 Research Design	41
3.3.1 Research Approach.....	41
3.3.2 Research Strategy	43
3.3.3 Research Method	43
3.4 Data Collection Techniques	45
3.4.1 Pilot Survey.....	45

3.4.2 Detailed Questionnaire Survey.....	45
3.4.3 Semi-structured Interviews	46
3.4.4 Expert Validation Interviews	47
3.5 Sample Selection.....	47
3.6 Data Analysis Techniques	49
3.6.1 Descriptive Analysis.....	49
3.6.2 One Sample T Test	49
3.6.4 Kendall’s Rank Order Correlation Coefficient (Kendall’s tau)	51
3.6.5 Content Analysis	52
3.7 Summary	52
CHAPTER FOUR.....	53
4.0 FINDINGS AND DISCUSSION	53
4.1 Introduction	53
4.2 Pilot Survey	53
4.3 Demographic Information of the Questionnaire Respondents.....	54
4.3.1 Proportion of Respondents.....	54
4.3.2 Positions of Respondents	55
4.3.3 Respondent’s Years of Experience.....	55
4.3.4 Type of Organization.....	56
4.4 Important Community Participation Activities in a Public Construction Project	57
4.4.1 Phase 1: Inception.....	62
4.4.2 Phase 2: Feasibility.....	64
4.4.3 Phase 3: Detailed Design	65
4.4.4 Phase 4: Construction and Implementation	65

4.4.5 Phase 5: Project Closeout and Feedback	66
4.4.6 Summary of the Importance of Community Participation Activities	66
4.5 Examination the Current Level of Practice of all Community Participation Activities	67
4.6 Comparison of Important Community Participation Activities and Its Current Level of Practice	70
4.7 Factors Affecting the Practice of Community Participation In Public Construction Projects	75
4.7.1 Organizational Related Factors	76
4.7.2 Community’s Cultural and Behavioral Factors.....	78
4.7.3 Process related Factors.....	81
4.7.4 Legislation related Factors	83
4.7.5 Summary - Factors Affecting the Practice of Community Participation	85
4.8 Strategies to Enhance Effective Community Participation in Public Construction Project.....	87
4.8.1 Transparency in Community Participation Process	87
4.8.2 Create Community Awareness.....	88
4.8.3 Implement Community responsible Entities	89
4.8.4 Develop ownership-based approach.....	90
4.8.5 Conduct assessments through government organizations	90
4.8.6 Educate construction industry professionals.....	91
4.8.7 Conduct post community participation evaluation.....	91
4.8.8 Establish government audits for community participation	92
4.8.9 Summary - Strategies to Enhance Effective Community Participation..	92
4.9 A Framework for Implementing Agencies to Enhance Effective Community Participation in Public Construction Project	93
4.10 Validation of Community Participation Framework	95

4.11 Summary	96
CHAPTER FIVE	98
5.0 CONCLUSIONS AND RECOMMENDATIONS	98
5.1 Introduction	98
5.2 Conclusions.....	98
5.3 Recommendations	101
5.4 Further Research	102
REFERENCES	103
ANNEXES	126
Annex 1: Questionnaire Survey Guideline.....	126
Annex 2: Semi-structured Interview Guideline.....	133

LIST OF FIGURES

Figure 2.1: Construction Project Stakeholders	11
Figure 2.2: The Arnstein Participation Model.....	23
Figure 2.3: MethodBank for Public Participation	26
Figure 2.4: The Barriers to Community Participation	37
Figure 2.5: Chapter Summary - Community Participation in Construction Projects .	40
Figure 3.1: Research Process.....	42
Figure 4.1: Proportions of Respondents and Non-Respondents.....	54
Figure 4.2: Professions of Respondents	55
Figure 4.3: Experience of Respondents	56
Figure 4.4: Type of Organization selected for the Data Collection.....	56
Figure 4.5: Rating for 5 Point Likert Scale	57
Figure 4.6: Overall Mean Values of Community Participatory Activities	62
Figure 4.7: Values of Coefficient Correlation	72
Figure 4.8: Framework to Enhance Effective Community Participation in Public Construction Project.....	97

LIST OF TABLES

Table 2.1: Understanding the Differences among Local Communities.....	13
Table 2.2: Major Construction Impacts experienced by the Local Community	17
Table 2.3: Different Forms of Community Participation.....	24
Table 2.4: Community Participation Activities throughout Project Lifecycle.....	29
Table 2.5: Community Participatory Activities throughout the Project Lifecycle	31
Table 2.6: Current Challenges of Community Participation Practice in Public Construction Projects	36
Table 4.1: Most Important Community Participatory Activities.....	59
Table 4.2: Current Level of Practice of Community Participation Activities.....	67
Table 4.3: Relationship between the Level of Participation and the Extent of Current Practice	70
Table 4.4: Interpretation of Correlation adopted in this Study.....	72
Table 4.5: Summary of Kendall's Tau-b Analysis Results	74
Table 4.6: Summary of Interview Respondents' Profile	75
Table 4.7: Summary - Factors Affecting the Practice of Community Participation ..	85
Table 4.8: Summary - Strategies to Enhance Effective Community Participation	93
Table 4.9: Summary of Respondents participated for Expert Validation	95

LIST OF ABBREVIATIONS

ADB	Asian Development Bank
BRE	Building Research Establishment
CP	Community Participation
EIA	Environmental Impact Assessment
GDP	Gross Domestic Product
GRC	Grievance Redress Committees
IAP2	International Association for Public Participation
IDB	Inter-American Development Bank
IEE	Initial Environmental Examination
IFC	International Finance Corporation
NGO	Non-Government Organization
PMI	Project Management Institute
RQ	Research Question
RR	Response Rate
SPSS	Statistical Package for Social Sciences
UNDP	United Nations Development Programme