# MANAGING RISKS IN FOREIGN FUNDED PROJECTS IN SRI LANKA: A CASE STUDY OF WATER SUPPLY AND WASTE WATER PROJECTS

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Degree of Master of Science in Project Management

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

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#### **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.

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#### **ABSTRACT**

## Managing risks in foreign funded projects in Sri Lanka: a case study of water supply and waste water projects

Increase in population and economic development in recent past results increasing in demand for treated water for the domestic and industrial sectors. This applies immense pressure on government to implement projects to meet these increasing demands efficiently and effectively. As a result, many foreign funded water projects have been commenced in recent past. Although the government has accepted the need for more investments to increase the water supply coverage and enhance the quality of the service, the successful implementation of the water supply projects has always been a challenge and many issues related to projects affecting the foreign funded projects in Sri Lanka. The purpose of studying the risk factors affecting the foreign funded projects is to make recommendations to improve the degree of the success of implementation of water supply projects in the future.

A comprehensive literature was conducted to acquire knowledge to analyze risk related to foreign funded projects. Further questionnaire survey, expert interviews were conducted with project directors of foreign funded projects in National Water Supply and Drainage Board.

Base on the study findings in total, 26 critical risk factors were identified through a detailed literature review. The factors were tabulated in a questionnaire form and sent out to gather owner's perception on the rating of each risk factors regarding probability of occurrence and impact on foreign funded projects. A risk matrix having four risk levels as "low risk – (green)", "moderate risk – (yellow)", "high risk – (orange)" and "extreme high risk- (red)" is developed to evaluate significant risk factors. The analysis indicates that thirteen factors are located in the green zone, eight factors are located in the yellow zone, one factor is located in the orange zone and seven factors are located in the red zone of the risk matrix. The predominant risk factors that are located in the red zone are considered for developing risk management framework. Risk control measures were identified through in-depth interviews which were conducted with five experts, including 3 project directors of NWSDB and 2 project managers. Based on the findings, a risk management framework was developed which will be benefit the risk management of foreign funded water projects.

**Keywords:** foreign funded water projects, risk, risk identification, risk matrix, risk response measure.

## TABLE OF CONTENT

CILADT	NED 01	Contents
	ER 01	
1.1	Background	
1.2	Research Problem	
1.3	Aim & Objectives	5
1.4	Methodology	6
1.5	Scope and Limitations	6
1.6	Chapter Breakdown	7
CHAPT	ER 02	8
2.1	Introduction	8
2.2	Risk	8
2.3	Risk Management Process	9
2.4	Infrastructure Projects	11
2.5	Water supply and sanitation projects in Sri Lanka	12
2.6	Construction Project Funding	13
2.7	Foreign Funded Water Projects in Sri Lanka	15
2.8	Risks facing the implementation of these projects	19
2.9	Project Risk	20
2.9	.1 Contractual Related	21
2.9	.2 Foreign Contractor Related	22
2.9	-	
2.9	.4 Funding Related	23
2.9	.5 Political Risks	24
2.9	.6 Act of God	24
3.1	Introduction	
3.2	Research Process	
3.3	Research Strategy	
3.3		
	3.3.1.1 Survey approach	
3.3.		
	3.2.1 Preliminary survey	
	3.3.2.2 Questionnaire survey	

3.3.2.3 Expert survey	32
3.3.3 Data analysis	33
3.3.3.1 Identification of critical risk factors	33
3.4 Summary	35
CHAPTER 04	37
4.1 Introduction	37
4.2 The Questionnaire Survey	37
4.2.1 Response rate	37
4.3 The Expert Survey	38
4.3.1 Interviewee Information	38
4.4 Critical Risk Factors in Foreign Funded Water Projects	38
4.4.1 Contractual Related Risks	38
4.4.2 Foreign Contractor Related	39
4.4.3 Local Authority and Regulations Related	41
4.4.4 Funding Related	43
4.4.5 Political Related	44
4.4.6 Act of God Related	45
4.4.5 Identified extremely high risks and high risks in Foreign funded Water Supply Projects	46
4.4.6 Critical risk mitigating framework and Identifying the most genetic risks t water projects	
CHAPTER 05	54
5.1 Conclusion	54
5.2 Recommendation	55
5.3 Limitation	56
5.4 Further Research	56
REFERENCE	57
APPENDIXES	64

## LIST OF FIGURES

Chapter 1	
Figure 1. 1: Total piped water coverage	3
Figure 1. 2: Water supply connection growth	3
Chapter 2	
Figure 2. 1: Risk Management process	9
Figure 2. 2: Risk Management framework	10
Figure 2. 3: ID Project Network Model	15
Chapter 3	
Figure 3. 1: Research process	27
Chapter 4	
	20
Figure 4. 1:Risk zone for contractual risks	
Figure 4. 2: Risk zone for foreign contractor related risks	41
Figure 4. 3: Risk zone for Local Authority and Regulations related risks	42
Figure 4. 4: Risk zone for Funding Related risks	44
Figure 4. 5: Risk zone for Political Related risks	45
Figure 4. 6: Risk zone for Act of God related risks	46

## LIST OF TABLES

Chapter 2	
Table 2. 1: Ongoing water supply and sanitation projects in Sri Lanka	12
Table 2. 2: Proposed water supply and sanitation projects in Sri Lanka	13
Table 2. 3: Water supply and sanitation projects and estimated cost in Sri Lan	ka17
Chapter 3	
Table 3. 1: Risk factors with relate to FF water projects in Sri Lanka	29
Table 3. 2: Risk matrix	34
Table 3. 3: Scale used to identify risk factor's impact and probability	35
Chapter 4	
Table 4. 1: Details of experts	38
Table 4. 2: Risk score of contractual Risks	38
Table 4. 3: Risk matrix for contractual related risk	39
Table 4. 4: Risk score of foreign Contractor related	39
Table 4. 5: Risk Matrix for Foreign contractor related	40
Table 4. 6: Risk score for Local Authority and Regulations related risks	41
Table 4. 7: Risk matrix for Local Authority and Regulations related risks	42
Table 4. 8: Risk Score for Funding Related risks	43
Table 4. 9: Risk matrix for Funding Related risks	43
Table 4. 10: Risk Score for Political Related risks	44
Table 4. 11: Risk matrix for Political Related risks	44
Table 4. 12: Risk Score for Act of God Related risks	45
Table 4 13: Risk Matrix for Act of God Related risks	46

#### LIST OF ABBREVIATIONS

ADB - Asian Development Bank

DAC - Development Assistance Committee

DANIDA - Danish International Development Agency

DI - Ductile Iron

E&M - Electrical and Mechanical

FF - Foreign Funded

GOSL - Government of Sri Lanka

HDPE - High Density Poly Ethylene

ID - International Development

JICA - Japan International Cooperation Agency

MCP - Management Control Plan

National Water Supply and Drainage

NWS&DB - Board

PD - Project Director

PM - Project Manager

PMU - Project Management Unit

RFP - Request for Proposals

RII - Relative Importance Index

SPSS - Statistical package for social science

UN - United Nations

VH - Very High
VL - Very Low